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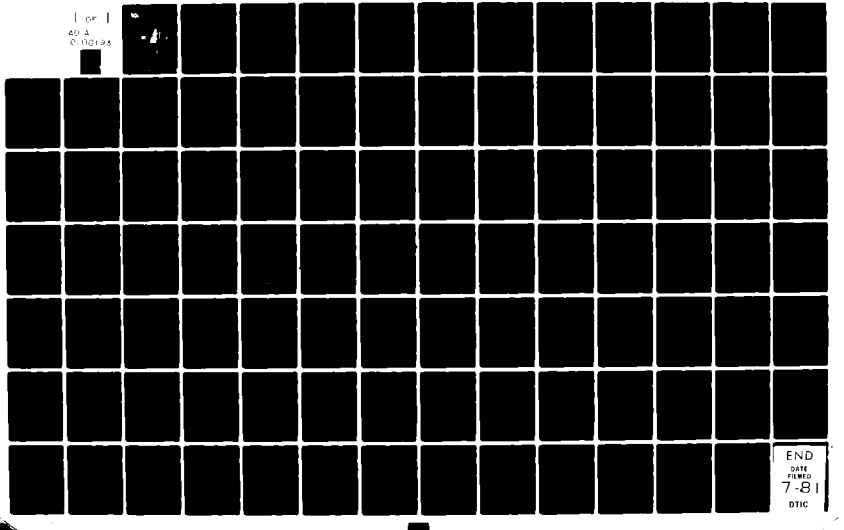

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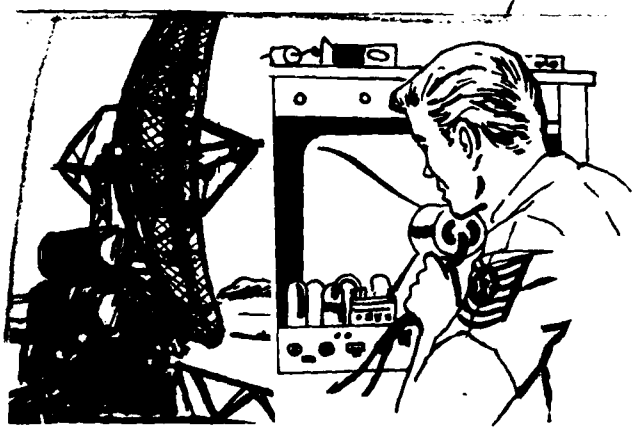
OCCUPATIONAL SURVEY REPORT



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AIRCRAFT CONTROL AND WARNING RADAR SPECIALTY

AFS-303X2.

Volume III, VOL. III OF IV

AFPT-90-303-400

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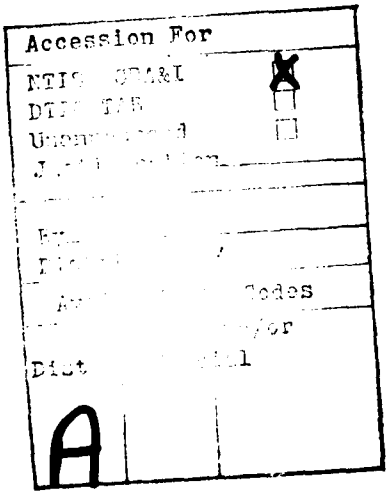
OCCUPATIONAL ANALYSIS PROGRAM
USAF OCCUPATIONAL MEASUREMENT CENTER
AIR TRAINING COMMAND
RANDOLPH AFB, TEXAS 78148

TABLE OF CONTENTS



PREFACE

This report presents the results of a detailed Air Force Occupational Survey of the Aircraft Control and Warning Radar Specialty (AFS 303X2). The project was directed by USAF Program Technical Training Volume 2, dated June 1979. Authority for conducting occupational surveys is contained in AFR 35-2. Computer printouts from which this report was produced are available for use by operating and training officials.

The Air Force occupational survey program has been in existence since 1956 when initial research was undertaken by AFHRL (Air Force Systems Command) to develop a methodology for gathering and analyzing occupational information. In 1967, an operational occupational survey program was established within the Air Training Command and surveys were produced annually for 12 enlisted specialties. In 1972, the program was expanded to conduct occupational surveys covering 51 career fields annually. In late 1976, the program was again expanded to include the survey of officer utilization fields, to permit special management applications projects, and to support interservice or joint service occupational analysis.

The survey instrument used in the present project was developed by Chief Master Sergeant Robert Wing, Inventory Development Specialist. Captain Michael Hill, First Lieutenant Gordy Curphy, and Second Lieutenant John Tierney analyzed the survey data and First Lieutenant Gordy Curphy wrote the final report. This report has been reviewed and approved by Lieutenant Colonel Jimmy L. Mitchell, Chief, Airman Career Ladders Analysis Section, Occupational Analysis Branch, USAF Occupational Measurement Center, Randolph AFB, Texas 78148.

Copies of this report are available to air staff sections, major commands, and other interested training and management personnel upon request to the USAF Occupational Measurement Center, attention to the Chief, Occupational Analysis Branch (OMY), Randolph AFB, Texas 78148.

This report has been reviewed and is approved.

PAUL T. RINGENBACH, Col, USAF
Commander
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SUMMARY OF RESULTS

1. Survey Coverage: Inventory booklets were administered to Aircraft Control and Warning (AC&W) Radar (AFSC 303X2) personnel worldwide. Survey results are based on the responses from 724 AFS 303X2 incumbents (71 percent of assigned). A majority of the incumbents surveyed were assigned to TAC, USAFE, or AFCC.

2. Career Ladder Structure: A majority of DAFSC 303X2 personnel were found to be performing primarily radar maintenance type tasks and were identified in such jobs as AC&W Radar Maintenance Personnel, Junior AC&W Radar Maintenance Personnel, Ancillary Maintenance Personnel, and Tactical Radar Crew Members. A smaller percentage of 303X2 personnel were identified in job groups which concentrated on supervision, administration, or training. These job groups included Job Control Personnel, Radar Maintenance Supervisors, Quality Control Personnel, NCOICs, Plans and Scheduling, Tactical Radar Maintenance NCOICs, and Resident Course Instructors.

3. Career Ladder Progression: Performing periodic maintenance inspections (PMI) and general maintenance tasks are indicative of 3-skill level personnel. Five-skill level personnel perform the same basic job, but spend more time on supervisory and administrative duties and somewhat less time performing radar maintenance duties. Seven-skill level personnel are firstline supervisors, and roughly divide their time between supervisory and radar maintenance duties. DAFSC 30399 personnel are middle level supervisors and managers, and spend almost all of their job time performing supervisory duties.

4. TAFMS Groups: The typical trend of an increasing percentage of time spent on supervisory tasks with increasing months TAFMS were noted. A review of job satisfaction data reveals that first enlistment (1-48 months TAFMS), second enlistment (49-96 months TAFMS), and career (97+ months TAFMS) 303X2 personnel are about equally satisfied with their jobs as personnel in comparative career ladders. Also, first enlistment personnel were identified as performing a wide variety of jobs, with general and preventive maintenance tasks being performed by the highest percentages of these incumbents.

5. Analysis of CONUS Versus Overseas Groups: Overall, the jobs performed by these two groups of DAFSC 30352 personnel were fairly similar. However, due to the mobile AC&W radar mission overseas, mobility type tasks were performed by somewhat greater percentages of overseas personnel.

6. Major Command Comparison: AFSC personnel were differentiated by the equipment modification and validation type tasks they perform. Antenna maintenance tasks seemed to be indicative of PACAF personnel. ATC respondents were responsible for conducting resident course classroom training. USAFE respondents have a mobile AC&W mission, and mobility related tasks best differentiated these incumbents.

7. Training Analysis: The 3-, 5-, 7-, and 9-skill level AFR 39-1 Specialty Descriptions were found to provide a clear overview of the 303X2 career ladder. The STS, dated November 1977, appears comprehensive. The POI for the basic resident course (3ABR30332, January 1979) appears to provide comprehensive training for new personnel entering the 303X2 specialty, and is well supported by job inventory data.

8. Implications: The 303X2 career ladder should remain fairly stable in the near future, and no major changes are foreseen. Job satisfaction indicators are noted to vary across jobs identified in the 303X2 specialty, and managers need to be aware of those jobs (especially those personnel performing job control functions) which are dissatisfying and to try and find ways to improve them.

OCCUPATION SURVEY REPORT
AIRCRAFT CONTROL AND WARNING RADAR SPECIALTY
(AFS 303X2)

INTRODUCTION

This is a report of an occupational survey of the Aircraft Control and Warning Radar (AFS 303X2) specialty, completed by the Occupational Analysis Branch, USAF Occupational Measurement Center, in January 1981. The survey was initiated at the request of the Air Force Manpower and Personnel Center Classification Branch (AFMPC/MPCRPQ) in order to determine the feasibility of merging three radar maintenance specialties (AFSs 303X1, 303X2, and 303X3) into a common specialty. In order to properly address this issue, the personnel in all three specialties were surveyed using a common job inventory. The feasibility of merging the three specialties and other types of analyses across the three career ladders is presented in a combined report (AFPT 90-303-400, Volume I). This report concentrates primarily on the results relating to the Aircraft Control and Warning Radar (AFS 303X2) specialty. Detailed results of the Air Traffic Control Radar (AFS 303X1) and Automatic Tracking Radar (AFS 303X3) specialties are provided in two separate reports (AFPT 90-303-400, Volumes II and IV).

Background

As outlined in the current AFR 39-1 Specialty Descriptions, Aircraft Control and Warning Radar personnel are responsible for installing, inspecting, maintaining, and repairing fixed or mobile ground types of aircraft control and warning radar, related radar operator training devices, and associated identification and test equipment. These incumbents may also perform duty as a height finder radar maintainer/operator. Aircraft control and warning radars are generally used to detect and identify aircraft in the defense of North America or Europe.

Historically, the 303X2 career ladder was created in 1953. In 1955, the 3- and 5-skill level personnel were subdivided into six shreds. Each shred specialized in the following types of equipment:

1955	303X2A - CPS/1/4/5
	303X2B - TPS/ID/10D
	303X2C - FPS/3/6
	303X2D - CPS/6B
	303X2E - FPS/4/8
	303X2F - FPS/14
1957	303X2G - FST/2
	303X2H - GPA/37

In 1957 two additional 3- and 5-skill level shreds were added. All eight shreds were deleted in early 1959. The 7-skill level designation remained basically unchanged from 1953 to the present. However, the 9-skill level has

undergone some designation changes. The 9-skill level was first created in 1960 as DAFSC 30390. In 1970, the designation changed to DAFSC 30393 and in 1979 the designation changed again to DAFSC 30399, which is currently in use.

Formal training for personnel desiring to enter the 303X2 specialty is available at Keesler AFB MS. This is a 98-day course in which future Aircraft Control and Warning Radar Repairmen are oriented in the areas of electronic principles, digital principles, radar subsystem principles, and preventive maintenance techniques. Upon completion of this course, graduates are awarded a 3-skill level and are assigned to various units worldwide.

Objectives

This report will primarily examine the Aircraft Control and Warning Radar specialty (AFS 303X2) on the basis of the tasks performed by the survey respondents. However, it is important to note that the survey instrument utilized for this report was a combined 303X1, 303X2, and 303X3 survey. The results of the AFS 303X1, AFS 303X3, and joint 303X1, 303X2, and 303X3 analyses are presented in three separate reports (AFPT 90-303-400, Volumes I, II, and IV). It is highly recommended that users of this report also examine the other three reports in order to better assess the 303X2 specialty.

Topics discussed in this report include: (1) development and administration of the survey instrument; (2) the jobs performed by 303X2 personnel; (3) CONUS versus overseas differences; (4) comparisons of the job structure to current AFR 39-1 Specialty Descriptions, the Specialty Training Standard (STS), and Plan of Instruction (POI); and (5) job satisfaction and other related background data.

SURVEY METHODOLOGY

Inventory Developemt

The data collection instrument for this occupational survey was USAF Job Inventory AFPT 90-303-400. As a starting point, the tasks listed in the 1977 303X1, the 1978 303X2, and the 1977 303X3 job inventories were reviewed for currency by the Inventory Development Specialist and two Instructors from each specialty at Keesler AFB MS. They then reviewed all pertinent career ladder publications and directives for additional radar related tasks. This tentative task list was then reviewed for completeness and accuracy by 30 303X1, 303X2, and 303X3 personnel at Nellis AFB NV, Tinker AFB OK, Peterson AFB CO, and LaJunta AFS CO. The resulting task list was reviewed again by 303X1, 303X2, and 303X3 Keesler Technical Training Instructors in a face-to-face encounter to insure the tasks were representative of the jobs performed by 303X1, 303X2, and 303X3 personnel. This encounter helped to insure that the skills and knowledges needed to perform a task were the same, regardless of the equipment associated with the task. For example, wiring diagrams of radar equipment using klystrons were presented during the encounter, and the Training Instructors debated on whether the skills and knowledge need to isolate malfunctions on one type of equipment was essentially the same as for the other type of equipment. If the skills and knowledge were similar, then only one task was written, such

as "isolate diplexer malfunctions". If the skills and knowledges differed to some degree, then a number of more equipment specific tasks were written, such as "isolate klystron malfunctions in search radars." Another example of this type of commonality discussion centered around components of various systems. In this study there was a consensus that most components removed or replaced required the same skill no matter what system they were located in. For example, the task "remove or replace duplexers" indicates that the skill is the same no matter what equipment it is located in.

This process resulted in a final job inventory of 1,324 tasks grouped under 20 duty headings. In addition, a background section which included information about each respondent, such as grade, Total Active Federal Military Service (TAFMS), duty title, job interest, and the type of radar system maintained or operated.

Job Inventory Administration

During the period May through September 1980, Consolidated Base Personnel Offices in operational units worldwide administered the inventory to all job incumbents holding a DAFSC of 303X1, 303X2, 303X3, or 30399. These job incumbents were identified using AFMPC personnel data tapes available through the Air Force Human Resources Laboratory (AFHRL).

Each individual who filled out an inventory first completed an identification and biographical information section and then checked each task performed in their current job. After checking all tasks performed, each member then rated each of these tasks on a nine-point scale showing relative time spent on the task as compared to all other tasks checked. The ratings ranged from one (very small amount of time spent) through five (about average time spent) to nine (very large amount time spent).

To determine relative time spent for each task checked by a respondent, all of an incumbent's ratings are assumed to account for 100 percent of his or her time spent on the job and are summed. Each task is then divided by the total task ratings and multiplied by 100. This procedure provides a basis for comparing tasks in terms of both percent members performing and relative percent time spent.

Task Factor Administration

In addition to completing the job inventory, selected senior 303X2 personnel were also asked to complete a second booklet for task difficulty. The task difficulty booklets are processed separately from the job inventories. This information is used in a number of different analyses discussed in more detail with the report.

Task Difficulty. Each senior NCO completing a task difficulty booklet was asked to rate all of the tasks on a nine-point scale from extremely low to extremely high as to the relative difficulty of that task. Difficulty is defined as the length of time it requires an average member to learn to do that task. Task difficulty data was independently solicited from experienced 7- or 9-skill level personnel stationed worldwide in each specialty. The interrater reliability (as assessed through components of variance of standard group means) for the 40 DAFSC 303X2 raters who returned booklets was .92 which suggests

very high agreement. Ratings were then adjusted so that tasks of average difficulty have ratings of 5.0. The resulting data is a rank ordering of tasks indicating a degree of difficulty for each task in the inventory.

Job Difficulty Index. After computing the task difficulty index for each item, it is then possible to compute a Job Difficulty Index (JDI) for the job groups identified in the survey analysis. This index provides a relative measure of wnich jobs, when compared to other jobs identified, are more or less difficult. An equation using the number of tasks performed and the average difficulty per unit time spent as variables are the basis for the JDI. This index ranges from one for very easy jobs to 25 for very difficult jobs. The data are adjusted so that the average job difficulty index is 13.00. Thus, the more time a group spends performing difficult tasks, and the more tasks they perform, the higher will be their job difficulty index. The JDI ratings for the 303X2 career ladder can be found in the CAREER LADDER STRUCTURE and Appendix A of this report.

When used in conjunction with other factors, such as percent members performing, the task difficulty ratings can provide insight into the training requirements of specialty. This may help validate the lengthening or shortening of specific units of instruction to refine various training programs.

Survey Sample

Personnel were selected to participate in this survey so as to insure an accurate representation across all MAJCOM and paygrade groups. In this study, all incumbents with a 303X2 DAFSC were solicited for their responses. Table 1 reflects the major command distribution of personnel assigned to the 303X2 career ladder as of the Fall of 1980. Table 2 reflects the percentage distribution by paygrade. Table 3 reflects the distribution of the survey sample in terms of TAFMS groups. Overall, a representative sample was obtained, with 724 of the 1,023 respondents (71 percent) assigned to this career ladder sampled.

TABLE 1

COMMAND DISTRIBUTION OF SURVEY SAMPLE

MAJOR COMMAND	PERCENT OF ASSIGNED	PERCENT OF SAMPLE
TAC	58	65
USAFE	17	14
AFCC	13	12
ATC	4	5
PACAF	3	2
AFSC	2	1
OTHER	3	1
TOTAL	100	100

TOTAL 303X2 ASSIGNED - 1,023
TOTAL 303X2 SAMPLED - 724
PERCENT OF 303X2 SAMPLED - 71%

TABLE 2

PAYGRADE DISTRIBUTION OF SURVEY SAMPLE

PAYGRADE	PERCENT OF ASSIGNED	PERCENT OF SAMPLED
AIRMAN	14	10
E-4	16	29
E-5	36	33
E-6	20	18
E-7	14	10
E-8	*	*
TOTAL	100	100

* DENOTES LESS THAN ONE PERCENT

TABLE 3

TAFMS DISTRIBUTION OF SURVEY SAMPLE

	MONTHS TIME IN SERVICE			
	1-48	49-96	97+	TOTAL
NUMBER IN AFS 303X2 SAMPLE	211	157	356	724
PERCENT OF AFS 303X2 SAMPLE	29%	22%	49%	100%

Data Processing and Analysis

Once job inventories are returned from the field, they are prepared so that task responses and background information can be optically scanned. Other biographical information (such as name, base, autovon extension) is keypunched onto disks and entered directly into the computer. Once both sets of data are in the computer, they are merged to form a complete case record for each respondent. Computer generated programs using Comprehensive Occupational Data Analysis Programs (CODAP) techniques were then applied to the data.

CODAP produces job descriptions for respondents based on their responses to specific inventory tasks. Computer generated job descriptions are available for DAFSC groups, TAFMS groups, and MAJCOM groups, and include such information as percent members performing each task, the average percent time spent performing each task, the percent members utilizing various pieces of equipment, and the cumulative average percent time spent by all members for each task in the inventory.

CAREER LADDER STRUCTURE

The structure of jobs within the Aircraft Control and Warning (AC&W) Radar career ladder was examined on the basis of similarity of tasks performed and the percent of time spent ratings provided by job incumbents, independent of specialty or other background factors.

For the purpose of organizing individual jobs into similar units of work, an automated job clustering program is used. This hierarchical grouping program is a basic part of the Comprehensive Occupational Data Analysis Program (CODAP) system for job analysis. Each individual job description in the sample is compared to every other job description in terms of tasks performed and the relative amount of time spent on each task in the job inventory. The automated system is designed to locate the two job descriptions with the most similar tasks and percent time ratings and combine them to form a composite job description. In successive stages, new members are added to initial groups or new groups are formed based on the similarity of tasks and percent of time ratings in each individual job description. This procedure is continued until all individuals and groups are combined to form a single composite representing the total sample. The resulting analysis of the variety of groups of jobs serves to identify: (1) the number of characteristics of the different jobs which exist within the career ladders; (2) the tasks which tend to be performed together by the same respondents; and (3) the breadth or narrowness of the jobs which exist within the Aircraft Control and Warning Radar career ladder.

The basic identifying group used in the hierarchical job structuring process is the Job Type. A job type is a group of individuals who perform many of the same tasks and spend similar amounts of time performing them. When there is a substantial degree of similarity between different job types, they are grouped together and labeled as Clusters. In many career ladders, there are specialized job types that are too dissimilar to be grouped into any cluster. These unique groups are labeled Independent Job Types.

The jobs performed by AC&W Radar career ladder incumbents are illustrated in Figure 1. Based on the similarity of tasks performed and the amount of time spent performing each task, five clusters and five independent job types were identified. These clusters and independent job types are listed on the following pages:

I. AIRCRAFT CONTROL AND WARNING (AC&W) RADAR MAINTENANCE PERSONNEL (GRP269, N=293)

- a. Tactical Radar Repairmen (GRP357, N=97)
- b. AC&W IFF/SIF Repairmen (GRP566, N=11)
- c. AN/FPN-6/90 Height Finder Radar Maintenance Repairmen (GRP632, N=22)
- b. AC&W Radar Supervisors (GRP966, N=28)
- e. Klystron Repairmen (GRP995, N=34)
- f. AN/FPS-26A Height Finder Radar Maintenance Repairmen (GRP925, N=26)

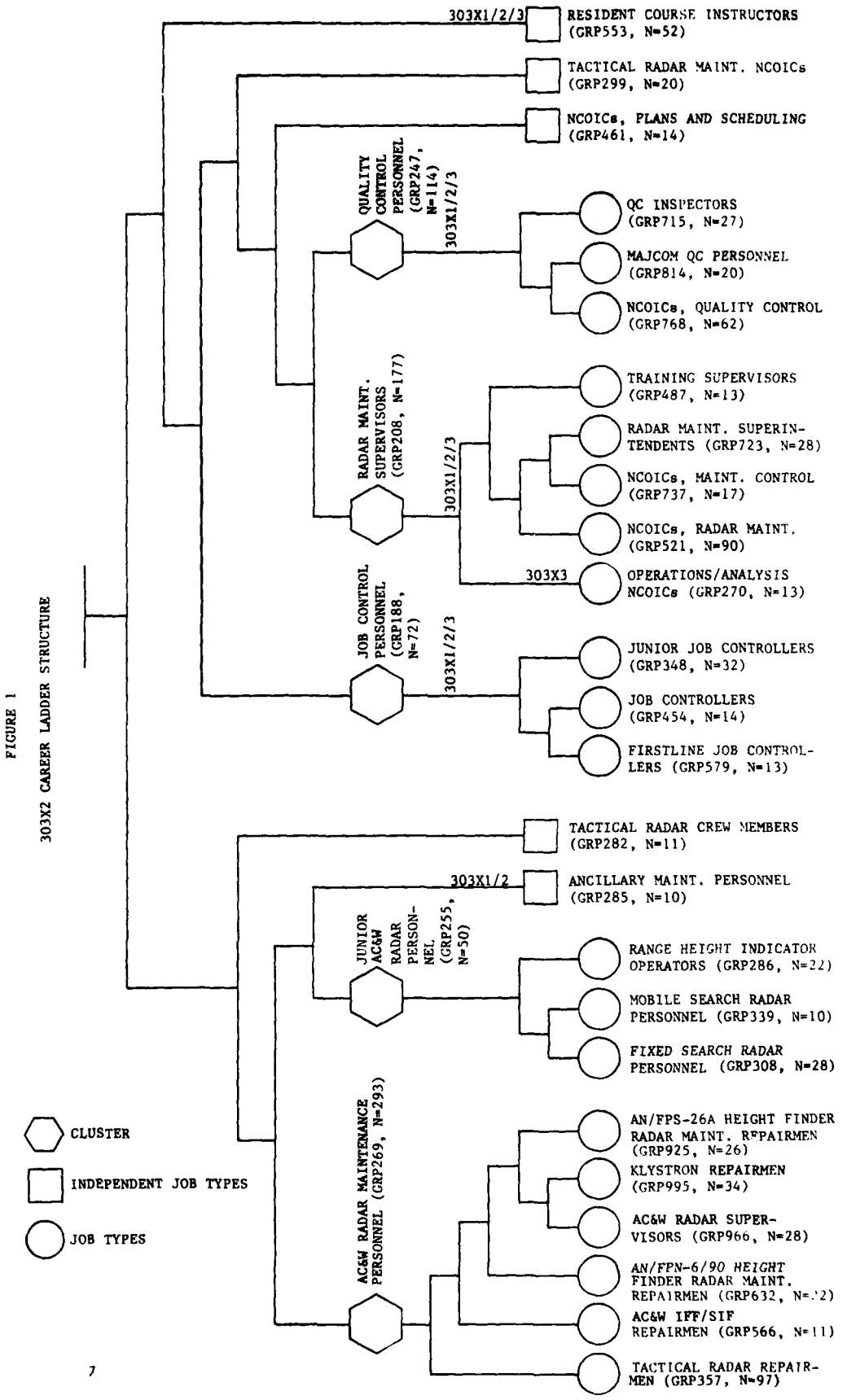

303X2 CAREER LADDER STRUCTURE
303X1/2/3
RESIDENT COURSE INSTRUCTORS (GRP553, N=52)
TACTICAL RADAR MAINT. NCOICs (GRP299, N=20)
NCOICs, PLANS AND SCHEDULING (GRP461, N=14)
QUALITY CONTROL PERSONNEL (GRP247, N=114)
303X1/2/3
QC INSPECTORS (GRP715, N=27)
MAJCOM QC PERSONNEL (GRP814, N=20)
NCOICs, QUALITY CONTROL (GRP768, N=62)
RADAR MAINT. SUPERVISORS (GRP208, N=177)
303X1/2/3
TRAINING SUPERVISORS (GRP487, N=13)
RADAR MAINT. SUPERINTENDENTS (GRP723, N=28)
NCOICs, MAINT. CONTROL (GRP737, N=17)
NCOICs, RADAR MAINT. (GRP521, N=90)
303X3
OPERATIONS/ANALYSIS NCOICs (GRP270, N=13)
JOB CONTROL PERSONNEL (GRP188, N=72)
303X1/2/3
JUNIOR JOB CONTROLLERS (GRP348, N=32)
JOB CONTROLLERS (GRP454, N=14)
FIRSTLINE JOB CONTROLLERS (GRP579, N=13)
TACTICAL RADAR CREW MEMBERS (GRP282, N=11)
303X1/2
ANCILLARY MAINT. PERSONNEL (GRP285, N=10)
JUNIOR AC&W RADAR PERSONNEL (GRP255, N=50)
RANGE HEIGHT INDICATOR OPERATORS (GRP286, N=22)
MOBILE SEARCH RADAR PERSONNEL (GRP339, N=10)
FIXED SEARCH RADAR PERSONNEL (GRP308, N=28)
AC&W RADAR MAINTENANCE PERSONNEL (GRP269, N=293)
AN/FPS-26A HEIGHT FINDER RADAR MAINT. REPAIRMEN (GRP925, N=26)
KLYSTRON REPAIRMEN (GRP995, N=34)
AC&W RADAR SUPERVISORS (GRP966, N=28)
AN/FPN-6/90 HEIGHT FINDER RADAR MAINT. REPAIRMEN (GRP632, N=12)
AC&W IFF/SIF REPAIRMEN (GRP566, N=11)
TACTICAL RADAR REPAIRMEN (GRP357, N=97)
CLUSTER
INDEPENDENT JOB TYPES
JOB TYPES

FIGURE 1

II. JUNIOR AC&W RADAR MAINTENANCE PERSONNEL (GRP255, N=50)

a. Fixed Search Radar Personnel (GRP308, N=28)
b. Mobile Search Radar Personnel (GRP339, N=10)
c. Range Height Indicator Operators (GRP286, N=22)

III. ANCILLARY MAINTENANCE PERSONNEL (GRP285, N=10)

IV. TACTICAL RADAR CREW MEMBERS (GRP282, N=11)

V. JOB CONTROL PERSONNEL (GRP188, N=72)

a. Firstline Job Controllers (GRP579, N=13)
b. Job Controllers (GRP454, N=14)
c. Junior Job Controllers (GRP348, N=32)

VI. RADAR MAINTENANCE SUPERVISORS (GRP208, N=177)

a. Operations/Analysis NCOICs (GRP270, N=13)
b. NCOICs, Radar Maintenance (GRP521, N=90)
c. NCOICs, Maintenance Control (GRP737, N=17)
d. Radar Maintenance Superintendents (GRP723, N=28)
e. Training Supervisors (GRP487, N=13)

VII. QUALITY CONTROL PERSONNEL (GRP247, N=114)

a. NCOICs, Quality Control (GRP768, N=62)
b. MAJCOM QC Personnel (GRP814, N=20)
c. Quality Control Inspectors (GRP715, N=27)

VIII. NCOICs, PLANS AND SCHEDULING (GRP461, N=14)

IX. TACTICAL RADAR MAINTENANCE NCOICs (GRP299, N=20)

X. RESIDENT COURSE INSTRUCTORS (GRP553, N=52)

The DAFSC respondents forming these job types and clusters account for 73 percent of the 303X2 survey sample. The remaining 27 percent did not group with any of the clusters of job types described above. Some of the job titles held by the remaining 27 percent were: ACQ/GCI Radar Maintenance Specialist, AC&W Radar Maintenance Technician, Radar Repairman, Crew Chief, Controller, Research and Development Technician, Electronic Systems NCO, Radar Evaluation Technician, Quality Control Inspector, CDC Author, and NCOIC, ADTAC Logistics Briefing Section. These personnel did not group with any cluster or job type because of either the unique job they perform or in the manner in which they perceived their job.

Overview

Generally, the career ladder is fairly heterogeneous, with a wide variety of radar maintenance, administrative, or supervisory jobs being performed by 303X2 personnel. However, these major job groups can be roughly divided into two functional areas. The first functional area includes all those 303X2

personnel who are performing various aspects of AC&W radar maintenance. This functional area includes the first four major job groups identified, and key differentiating factors among these clusters and independent job types appear to either involve the type of radars or radar equipment maintained or the average number of tasks performed. In addition, a majority of the 303X2 personnel sampled are identified in these job groups.

The second functional area includes the last six major job groups, in which most of these incumbents spend a majority of their job time performing supervisory, training, or administrative type tasks rather than radar maintenance tasks. Since most of these respondents do not work on equipment, the key differentiating factor for the personnel in this functional area appears to be the amount of time spent performing either supervisory, administrative, or training related tasks. In addition, it is important to note that four of these major job groups are also comprised of substantial percentages of both DAFSC 303X1 and 303X3 personnel.

Brief descriptions of each cluster and independent job type is presented below. In addition, there are three tables at the end of this section that provide additional information about the clusters and independent job types. Table 4 provides the relative percent time spent on each duty by the personnel in each of the major job groups identified. For example, AC&W Radar Maintenance Personnel spend 17 percent of their job time maintaining transmitter systems, while Tactical Radar Crew Members spend 23 percent of their time installing or removing radar systems. Table 5 provides selected background information, such as DAFSCs, MAJCOMs, or average months TAFMS. For example, 88 percent of Junior AC&W Radar Maintenance Personnel hold the 3- or 5-skill level, 84 percent are assigned to TAC, and 82 percent are in their first enlistment. Table 6 provides job satisfaction data for major job groups, and can help to indicate where potential morale problems could exist. For example, Job Control Personnel appear to be the most dissatisfied of all major job groups, with only 51 percent finding their job interesting and only 25 percent believe their training is being utilized at least fairly well.

Also included in this report are two appendices concerning the AC&W Radar Maintenance career ladder structure. Appendix A yields various duty, background, and job satisfaction information about the job types identified within each of the clusters found in the AC&W Radar Maintenance career ladder, in addition to a brief job description for each of the job types identified. Appendix B lists common tasks performed by members for each of the clusters and independent job types identified in this section.

I. AIRCRAFT CONTROL AND WARNING (AC&W) RADAR MAINTENANCE PERSONNEL (GRP269). These 293 incumbents form the largest 303X2 major job group. These incumbents perform an average of 211 tasks, most of which involve some technical aspect of AC&W radar maintenance. These incumbents are responsible for maintaining a variety of AC&W type radars, such as the AN/FPS-6/90, AN/TPS-43E, or the AN/FPS-26A. Typical tasks performed by respondents in this cluster include:

perform PMIs on transmitter equipment
lubricate antenna drive systems
perform PMIs on IFF/SIF equipment
interpret plans, schematics, or diagrams
perform PMIs on display equipment
perform soldering on circuit boards

Sixty-eight percent of these incumbents hold the 5-skill level, and 35 percent are in their first enlistment. Seventy-two percent of these personnel are assigned to TAC, and 74 percent are stationed in CONUS. Job satisfaction data appears to be about average when compared to other major job groups, with 63 percent of these respondents finding their job interesting and 80 percent perceiving their talents are utilized at least fairly well.

II. JUNIOR AIRCRAFT CONTROL AND WARNING (AC&W) RADAR MAINTENANCE PERSONNEL (GRP255). Eighty-eight percent of the personnel in this cluster hold DAFSC 30332 or 30352, and 82 percent are in their first enlistment. These incumbents also spend a majority of their job time performing AC&W radar maintenance tasks, but due to their limited experience, they perform substantially fewer tasks. In addition, these personnel are more likely to maintain the AN/FPS-6/90 family radars than the AC&W Radar Maintenance Personnel described above. Typical tasks performed by these incumbents include:

perform PMIs on antenna equipment
remove or replace resistors
lubricate antenna drive systems
remove or replace semiconductor devices
perform corrosion control on equipment cabinets or racks
adjust voltage regulators

As expected, a majority of these incumbents (84 percent) are assigned to TAC, and 96 percent are located in CONUS. Job satisfaction indicators reveal these incumbents appear to be relatively dissatisfied when their job, with only 46 percent perceiving their job as interesting and 42 percent planning to reenlist.

III. ANCILLARY MAINTENANCE PERSONNEL (GRP285). Five of the ten personnel in this independent job type hold DAFSC 303X2, with the remainder holding DAFSC 303X1. This group of 303X1/X2 personnel is differentiated by the relatively large amount of time spent performing maintenance on display and ancillary type equipment. These incumbents do not report maintaining any type of ATC or AC&W radars, but instead maintain such equipment as AN/GPA-127 radar indicators or AN/GPA-30 Video Mapping Units. Typical tasks performed by these personnel include:

align video mapper sweep deflectors
align indicator range mark generators
remove or replace cathode-ray tubes
align indicator focus coils
isolate video mapper sweep generator malfunctions
align video mapper optical systems

These incumbents perform a fairly high average number of tasks (150) and have a higher than average JDI (14.0). All of the 303X2 personnel in this independent job type are assigned to TAC or PACAF, and overall, 40 percent are in their first enlistment. Job satisfaction indicators appear mixed, with 80 percent of these personnel perceiving their talents are utilized at least fairly well, but only 30 percent plan to reenlist.

IV. TACTICAL RADAR CREW MEMBERS (GRP282). These 11 respondents are primarily working overseas, and are responsible for installing and maintaining the AN/TPS-43E radar. This is a mobile radar system used to assist fixed radar sites in determining the height, range, and heading of aircraft. Since this is a mobile system, these incumbents spend a relatively large amount of job time (23 percent) performing radar system installation and removal functions. Tasks performed by a majority of the incumbents in this major job group include:

erect mobile radar antennas
install or remove ground anchors, tiedowns, or straps
perform PMIs on display equipment
clean or replace air or moisture filters
install or disassemble waveguide systems
level shelters or vans

All of these respondents hold the 3- or 5- skill level, and 46 percent are in their first enlistment. As expected, most of these incumbents are USAFE resources (73 percent), with the remainder assigned to TAC. Personnel in this major job group appear to be satisfied with their job, with 82 percent perceiving their training is utilized at least fairly well and 55 percent planning to reenlist.

V. JOB CONTROL PERSONNEL (GRP188). Fifty-seven percent of the 72 personnel in this cluster hold DAFSC 30352 or 30372. As the job title indicates, the 303X2 personnel in this cluster are responsible for the job control and related functions associated with AC&W radars and related equipment. These incumbents spend very little time performing radar maintenance type tasks, but instead perform many types of administrative tasks. Job Control Personnel commonly perform such tasks as:

prepare job/status document forms (AF Form 264)
issue job control numbers
maintain status boards, graphs, or charts
maintain equipment status reports
determine work priorities
document equipment cannibalization

These incumbents perform a very low average number of tasks (17), with the first four tasks listed above making up 40 percent of their total job time. Somewhat expectedly, these incumbents perform the easiest job of all major job groups identified, having a JDI of only 5.6. Job satisfaction reflects the fact that these incumbents perform a narrow job, with only 51 percent of these incumbents finding their job interesting and only 25 percent perceiving their training is being utilized at least fairly well.

VI. RADAR MAINTENANCE SUPERVISORS (GRP208). Twenty-two percent of these 177 senior NCOs hold DAFSC 303X2, with the remainder holding either DAFSC 303X1, 303X3, or 30399. The 303X2 personnel in this cluster are the supervisors and managers of the 303X2 career ladder, and spend 74 percent of their job time performing supervisory tasks. As expected, these respondents supervise the highest average number of personnel (five) and have the highest average paygrade (E-6, E-7) of all major job groups identified. Tasks performed by high percentages of the personnel in this cluster include:

prepare APRs
participate in meetings, such as staff meetings, briefings, conferences, or workshops
interpret policies, directives, or procedures for subordinates
determine work priorities
counsel personnel on personal or military related problems
implement self-inspection programs

These incumbents also have the highest average months of TAFMS, and have a higher percentage of respondents holding the 9-skill level than any other major job group. Somewhat expectedly, very few of these personnel directly maintain any type or radar equipment. Job satisfaction indicators appear to be good, with 71 percent finding both their job interesting and utilizing their training at least fairly well.

VII. QUALITY CONTROL PERSONNEL (GRP247). DAFSC 303X2 personnel make up the largest percentage of the 114 incumbents in this cluster, but substantial percentages of DAFSC 303X1, 303X2, and 30399 personnel can also be found. The 303X2 personnel in this cluster are responsible for the quality control and quality assurance programs associated with the various types of AC&W radars and associated equipment. These incumbents spend very little time maintaining the different AC&W radars, but instead spend most of their job time performing supervisory duties, particularly the inspecting and evaluating duty. Typical tasks performed by these incumbents include:

perform equipment inspections
prepare inspection reports
perform personnel proficiency evaluations
evaluate compliance with performance standards
evaluate maintenance procedures
analyze trends in system malfunctions

These incumbents are rather senior (averaging 193 months TAFMS and having an average paygrade of E-6), but this is not surprising since it takes a fair amount of radar maintenance experience to adequately perform this job. Job satisfaction data reveals these incumbents are fairly satisfied, the 75 percent perceiving their talents are being utilized at least fairly well.

VIII. NCOICs, PLANS AND SCHEDULING (GRP461). Very few of the 14 incumbents in this independent job type perform radar maintenance type tasks. Instead, these incumbents spend almost all of their job time performing supervisory or administrative related tasks. Personnel in this independent job type are responsible for establishing various types of maintenance schedules and files, and are also responsible for the maintenance of those files. Typical tasks performed by these senior NCOs include:

develop equipment operations or maintenance schedules
maintain preventive maintenance inspections listings
maintain precision measurement equipment (PME) calibration schedules
plan equipment or facility maintenance requirements
maintain historical records
prepare Punch Card Transcript forms (AF Form 1530)

Sixty-five percent of these incumbents are assigned to TAC, and 79 percent are assigned to CONUS. Job satisfaction data appears mixed, with only 29 percent perceiving their training is being utilized at least fairly well, but 57 percent plan to reenlist.

IX. TACTICAL RADAR MAINTENANCE NCOICs (GRP299). These 20 incumbents are the firstline supervisors or team chiefs for the AN/TPS-43E radar set. As stated previously, this is a mobile radar system which is primarily employed overseas. Consequently, only 20 percent of these personnel are stationed in CONUS and all are spending time performing installation or removal functions. Since these incumbents are firstline supervisors, they seem to roughly divide their time between supervisory, administrative, or radar maintenance type tasks. Examples of these tasks include:

erect mobile radar antennas
supervise AC&W Radar Specialists (AFSC 30752)
install or remove interconnecting tables
install or remove mobilizers or transporters
determine work priorities
install or disassemble mobile IFF/SIF antennas

Seventy percent of these personnel hold the 7-skill level, and the same percentage is assigned to USAFE. A review of job satisfaction data reveals these incumbents are among the most satisfied, with 75 percent finding their job interesting and 60 percent planning to reenlist.

X. RESIDENT COURSE INSTRUCTORS (GRP553). Forty-two percent of these 52 incumbents hold DAFSC 303X2, and all of these incumbents work at Keesler AFB MS. The 303X2 personnel in this independent job type are responsible for conducting the various 303X2 resident courses found at this location. As expected, all of these incumbents are assigned to ATC and very few perform radar maintenance type tasks. Instead, these incumbents spend 81 percent of their job time performing training tasks, such as:

conduct resident course classroom training
prepare lesson plans
score tests
evaluate progress of resident course students
develop training aids
maintain training records, charts, or graphs

A review of job satisfaction data reveals these incumbents are among the most satisfied of all major job groups. For example, 86 percent of these incumbents find their job interesting, and 92 percent perceive their talents and training are being utilized at least fairly well.

Summary

The 303X2 career ladder appears to be fairly heterogeneous, with a wide variety of jobs being performed by 303X2 personnel. However, the types of jobs performed by 303X2 personnel can be roughly divided into two large groups, with one group of jobs primarily involving AC&W radar maintenance, and the other group involving 303X2 personnel who were identified as performing jobs related to supervision, administration, or training.

DAFSC 303X2 personnel almost exclusively make up the personnel identified in the radar maintenance job groups. These respondents are responsible for maintaining the various types of AC&W radars and associated equipment. There are four major job groups identified which were performing these types of functions, and include AC&W Radar Maintenance Personnel, Junior AC&W Radar Maintenance Personnel, Ancillary Maintenance Personnel, and Tactical Radar Crew Members. The key differentiating factors between these major job groups were the average number of tasks performed and the types of AC&W radars or associated equipment maintained.

The other group of jobs performed by 303X2 personnel involved various aspects of supervision, administration, or training. It is important to note that DAFSC 303X1 and 303X3 personnel were also identified in several of these major job groups, with the 303X2 personnel identified as being responsible for the AC&W radar aspect of these jobs. The six major job groups identified as performing very little AC&W radar maintenance included: Job Control Personnel; Radar Maintenance Supervisors; Quality Control Personnel; NCOICs, Plans and Scheduling; Tactical Radar Maintenance NCOICs; and Resident Course Instructors. Overall, these groups had very mixed job satisfaction indicators, with Resident Course Instructors and Tactical Radar Maintenance NCOICs among the most satisfied, and Job Control Personnel among the least satisfied of all the major job groups.

TABLE 4

RELATIVE PERCENT TIME SPENT ON DUTIES BY MAJOR JOB GROUPS

DUTIES	AC&W RADAR MAINTENANCE PERSONNEL (GRP269, N=293)	JUNIOR AC&W RADAR MAINTENANCE PERSONNEL (GRP255, N=50)	ANCILLARY MAINTENANCE PERSONNEL (GRP285, N=10)	TACTICAL RADAR CREW MEMBERS (GRP282, N=11)	JOB CONTROL PERSONNEL (GRP188, N=72)	RADAR MAINTENANCE SUPERVISORS (GRP208, N=177)	QUALITY CONTROL PERSONNEL (GRP247, N=114)	NCOICs, PLANS AND SCHEDULING (GRP461, N=14)	TACTICAL RADAR MAINTENANCE NCOICs (GRP299, N=20)	RESIDENT COURSE INSTRUCTORS (GRP553, N=52)
ORGANIZING AND PLANNING	*	*	2	*	11	17	11	20	8	3
DIRECTING AND IMPLEMENTING	2	*	2	*	10	22	10	14	8	5
INSPECTING AND EVALUATING	2	2	3	*	6	24	49	16	8	3
TRAINING	1	*	2	*	3	11	4	4	4	81
PERFORMING ADMINISTRATIVE AND SUPPLY FUNCTIONS	5	7	7	11	47	16	19	40	17	6
PERFORMING OPERATIONS FUNCTIONS	6	7	2	12	4	3	*	1	4	1
PERFORMING SITE SUPPORT FUNCTIONS	2	3	3	5	15	3	3	2	6	*
PERFORMING RADAR SYSTEM INSTALLATION AND REMOVAL FUNCTIONS	5	2	4	23	*	*	*	16	*	
PERFORMING GENERAL AND PREVENTIVE MAINTENANCE	25	43	23	29	1	1	*	*	13	*
MAINTAINING POWER AND DISTRIBUTION EQUIPMENT	4	3	5	*	*	*	*	*	1	*
MAINTAINING TIMING SYSTEMS	2	*	*	*	*	*	*	*	*	*
MAINTAINING TRANSMITTER SYSTEMS	17	14	1	5	*	*	*	*	4	*
MAINTAINING ANTENNA SYSTEMS	5	5	2	3	*	*	*	*	2	*
MAINTAINING RECEIVER SYSTEMS	11	5	3	6	*	*	*	*	3	*
MAINTAINING DISPLAY EQUIPMENT	5	4	23	1	2	*	*	*	*	*
MAINTAINING REMOTE EQUIPMENT	*	*	*	*	*	*	*	*	*	*
MAINTAINING ANCILLARY EQUIPMENT	*	*	15	*	1	*	*	*	*	*
MAINTAINING IDENTIFICATION FRIEND OR FOE (IFF) AND SELECTIVE IDENTIFICATION FEATURE (SIF) EQUIPMENT	5	1	3	2	*	*	*	*	4	*
MAINTAINING RANGE AND ANGLE TRACKING SYSTEMS	*	*	*	*	*	*	*	*	*	*
MAINTAINING COMPUTER SYSTEMS	*	*	*	*	*	*	*	*	*	*

*DENOTES LESS THAN ONE PERCENT

TABLE 5

BACKGROUND INFORMATION FOR MAJOR JOB GROUPS

	AC&W RADAR MAINTENANCE PERSONNEL	JUNIOR AC&W RADAR MAINTENANCE PERSONNEL	ANCILLARY MAINTENANCE PERSONNEL	TACTICAL RADAR CREW MEMBERS	JOB CONTROL PERSONNEL	RADAR MAINTENANCE SUPERVISORS	QUALITY CONTROL PERSONNEL	NCOICs, PLANS AND SCHEDULING	TACTICAL RADAR MAINTENANCE NCOICs	RESIDENT COURSE INSTRUCTORS
AVERAGE NUMBER OF TASKS PERFORMED:	211	64	150	58	17	84	56	33	131	15
JOB DIFFICULTY INDEX:	15.4	7.8	14.0	7.6	5.6	12.1	11.7	9.0	12.1	9.5
AVERAGE PAYGRADE:	E-4, E-5	E-3, E-4	E-4, E-5	E-4	E-4, E-5	E-6, E-7	E-6	E-6	E-5, E-6	E-5
PERCENT LOCATED IN CONUS:	74%	96%	80%	27%	89%	85%	83%	79%	20%	100%
AVERAGE NUMBER OF PERSONS SUPERVISED:	1	-	1	-	1	5	-	2	3	1
DAFSC:										
30332	7%	26%	-	27%	-	-	-	-	-	2%
30352	68%	62%	20%	73%	39%	1%	5%	21%	25%	23%
30372	24%	2%	30%	-	18%	21%	37%	57%	70%	17%
30399	-	-	-	-	-	28%	11%	-	-	-
303X1	-	6%	50%	-	19%	17%	24%	7%	-	43%
303X3	1%	4%	-	-	24%	33%	23%	15%	5%	15%
AVERAGE MONTHS TAFMS:	87	47	82	60	102	211	193	199	160	106
PERCENT IN FIRST ENLISTMENT:	35%	82%	40%	46%	32%	1%	-	-	5%	27%
MAJOR COMMAND:										
AFCC	9%	12%	50%	-	26%	27%	27%	14%	-	-
TAC	72%	84%	40%	27%	60%	38%	43%	65%	25%	-
USAFE	15%	-	-	73%	3%	6%	12%	14%	70%	-
PACAF	3%	-	10%	-	1%	2%	2%	7%	5%	-
OTHER	1%	4%	-	-	10%	27%	16%	-	-	100%
EQUIPMENT MAINTAINED:										
AN/FPS-6/90 FAMILY RADARS	28%	44%	10%	9%	1%	2%	3%	-	-	-
AN/GPA-13 DEFRUITERS	25%	20%	-	45%	5%	-	3%	-	15%	6%
AN/GPA-127 RADAR INDICATORS	37%	36%	50%	1%	4%	2%	4%	-	5%	2%
AN/TPS-43E RADAR SETS	41%	18%	-	73%	3%	2%	4%	-	90%	4%
AN/UPA-62 SERIES RADAR INDICATORS	37%	20%	10%	73%	3%	-	3%	-	85%	6%

TABLE 6

JOB SATISFACTION DATA FOR MAJOR JOB GROUPS
(PERCENT MEMBERS RESPONDING)

	AC&W RADAR MAINTENANCE PERSONNEL	JUNIOR AC&W RADAR MAINTENANCE PERSONNEL	ANCILLARY MAINTENANCE PERSONNEL	TACTICAL RADAR CREW MEMBERS	JOB CONTROL PERSONNEL	RADAR MAINTENANCE SUPERVISORS	QUALITY CONTROL PERSONNEL	NCOICs, PLANS AND SCHEDULING	TACTICAL RADAR MAINTENANCE NCOICs	RESIDENT COURSE INSTRUCTORS
I FIND MY JOB:										
NO RESPONSE	-	-	-	-	-	1	1	-	-	-
DULL	18	32	20	27	25	16	18	29	15	8
SO-SO	19	22	20	9	24	12	20	14	10	6
INTERESTING	63	46	60	64	51	71	61	57	75	86
MY JOB UTILIZES MY TALENTS:										
NO RESPONSE	-	-	-	-	-	1	-	-	-	-
NOT AT ALL TO VERY LITTLE	26	52	20	46	53	25	25	21	15	8
FAIRLY WELL OR BETTER	74	48	80	54	47	74	75	79	85	92
MY JOB UTILIZES MY TRAINING:										
NO RESPONSE	-	-	-	-	-	1	2	-	-	2
NOT AT ALL TO VERY LITTLE	20	26	30	18	75	28	26	71	20	6
FAIRLY WELL OR BETTER	80	74	70	82	25	71	72	29	80	92
I PLAN TO REENLIST:										
NO RESPONSE	1	-	-	-	-	3	1	-	-	2
NO, PLANNING TO RETIRE	5	2	10	-	13	36	40	29	10	10
NO OR PROBABLY NO	52	56	60	45	42	14	13	14	30	34
YES OR PROBABLY YES	42	42	30	55	45	47	46	57	60	54

ANALYSIS OF DAFSC GROUPS

An analysis of DAFSC groups forms a part of each occupational analysis. The DAFSC analysis can help to identify differences among skill level groups within the 303X2 specialty. It also aids in the analysis of career ladder documents, such as AFR 39-1 Specialty Descriptions and the Specialty Training Standard (STS).

The DAFSC analysis of the 303X2 specialty will discuss the duties and tasks common to the DAFSC groups, as well as discussing the tasks which best differentiate the 3-, 5-, 7-, and 9-skill level incumbents.

Skill Level Comparisons

As in most career ladders, the job performed by 3-skill level respondents is largely technical in nature. These personnel spend 88 percent of their job time performing technical duties, with two duties (performing preventive maintenance or maintaining transmitter systems) accounting for almost one-half of their total job time (see Table 7). This is realistic with the career ladder structure, since most of the 3-skill level personnel fall into the AC&W Radar Maintenance Personnel or Junior AC&W Radar Maintenance Personnel clusters (see Table 8). Table 9 lists those tasks performed by the highest percentages of 3-skill level respondents. These tasks primarily involve routine radar maintenance, such as removing or replacing fuses, resistors, relays, or capacitors, performing PMIs on antenna equipment, cleaning air or moisture filters, or performing soldering on circuit boards.

At the 5-skill level, Table 7 reveals the percentage of time spent performing duties changes somewhat, with slightly more time spent on supervisory duties and substantially less time spent performing general maintenance. However, an examination of the most common tasks performed by these incumbents (Table 10) reveals that general radar maintenance tasks, such as removing or replacing resistors, fuses, relays, or switches, performing PMIs on display equipment, or lubricating antenna drive systems are performed by a majority of 5-skill level personnel.

In a comparison of the duties and tasks performed by 3- and 5-skill level personnel, Table 7 reveals that both 3- and 5-skill level incumbents concentrate on performing technical duties; however, 5-skill level personnel spend much more time performing supervisory duties than DAFSC 30332 personnel. This same trend is reflected in Table 11, which lists both the tasks which are performed by high percentages of both 3- and 5-skill level personnel and the tasks which best differentiate these two skill level groups. Routine radar maintenance tasks, such as replacing fuses or capacitors or maintaining support equipment, are more likely to be performed by 3-skill level incumbents. Administrative or preventive maintenance tasks, such as preparing Maintenance Data Collection Record Forms (AFTO Form 349) or checking transmitter pulse transformer oil are performed by similar percentages of both 3- and 5-skill level personnel. Finally, IFF/SIF radar maintenance or supervisory tasks, such as aligning IFF/SIF receivers or conducting OJT best differentiate 5-skill level personnel.

The duties and tasks performed by 7-skill level personnel tends to indicate that these incumbents appear to be the firstline supervisors of the career ladder, and spend approximately half of their job time performing supervisory duties and the remainder spent performing radar maintenance related duties (Table 7). However, an examination of the most common tasks performed by these incumbents reveals supervisory tasks, such as preparing APRs, determining work priorities, supervising AC&W Radar Specialists (AFSC 30352), or establishing work schedules are performed by at least 40 percent of 7-skill level personnel (see Table 12).

When comparing DAFSC 30352 and 30372 personnel, Table 7 reveals 7-skill level incumbents spend substantially more time performing supervisory duties, and are found in more supervisory type jobs, such as Radar Maintenance Supervisors (Table 8). Table 13 lists the tasks which are performed by similar percentages of 5- and 7-skill level personnel and the tasks which best differentiate these incumbents. Preventive maintenance tasks, such as removing or replacing resistors or performing PMIs on antenna or receiver equipment are performed by relatively high percentages of DAFSC 30352 personnel. Administrative or general maintenance tasks, such as driving small government vehicles or maintaining benchmark parts or equipment levels are performed by approximately equal percentages of DAFSC 30352 and 30372 personnel. As expected, tasks related to supervision, such as preparing APRs or establishing work schedules, are performed by much higher percentages of DAFSC 30372 personnel.

Table 7 reveals DAFSC 30399 personnel spend 82 percent of their job time performing supervisory duties. This trend is also reflected in Table 8, where a majority of these incumbents can be found in the Radar Maintenance Supervisors cluster. These incumbents appear to be the middle level managers of the ladder, and an examination of the tasks performed reveal that counseling personnel on personal or military related matters, evaluating inspection reports, or establishing office instructions (OI) are performed by a majority of DAFSC 30399 personnel (see Table 14).

Table 15 lists those tasks which best differentiate and those which are commonly performed by both DAFSC 30372 and 30399 personnel. Typical AC&W radar maintenance tasks, such as performing PMIs on transmitter and receiver equipment and replacing circuit breakers are performed by relatively high percentages of DAFSC 30372 personnel. It is interesting to note that supervising AC&W Radar Specialists (AFSC 30352) is more typical of 7-skill level personnel than 9-skill level incumbents. This is probably due to the fact that 9-skill level personnel are also the middle level managers for the 303X1 and 303X3 specialties, and therefore in many cases do not directly supervise DAFSC 30352 personnel. Several administrative and supervisory tasks are performed by similar percentages of 7- and 9-skill level incumbents, and include maintaining status boards, graphs, or charts or implementing quality control standards. Finally, management type tasks, such as preparing agendas for staff meetings, assigning personnel to duty positions, or supervising personnel with AFSCs other than 303X1, 303X2, or 303X3 best differentiate DAFSC 30399 personnel.

Summary

Three-skill level personnel are primarily technicians, with these incumbents spending approximately 88 percent of their job time performing technical radar maintenance duties. DAFSC 30352 personnel also spend a majority of their job time on technical duties, but in addition spend slightly more time on administrative and supervisory related duties. Seven-skill level personnel are firstline supervisors, and roughly divide their time between supervisory and technical duties. DAFSC 30399 personnel are the supervisors or managers of the career ladder, with these incumbents spending 82 percent of their job time performing supervisory duties.

TABLE 7

RELATIVE TIME SPENT ON DUTIES BY 303X2 DAFSC GROUPS

DUTIES	DAFSC 30332 PERSONNEL (N=49)	DAFSC 30352 PERSONNEL (N=401)	DAFSC 30372 PERSONNEL (N=275)	DAFSC 30399 PERSONNEL (N=88)
ORGANIZING AND PLANNING	1	3	10	20
DIRECTING AND IMPLEMENTING	1	3	11	23
INSPECTING AND EVALUATING	2	4	18	34
TRAINING	2	5	9	5
PERFORMING ADMINISTRATIVE AND SUPPLY FUNCTIONS	6	11	16	11
PERFORMING OPERATIONS FUNCTIONS	9	7	3	*
PERFORMING SITE SUPPORT FUNCTIONS	4	4	4	2
PERFORMING RADAR SYSTEM INSTALLATION AND REMOVAL FUNCTIONS	6	5	3	*
PERFORMING GENERAL AND PREVENTIVE MAINTENANCE	33	23	9	*
MAINTAINING POWER AND DISTRIBUTION EQUIPMENT	4	3	1	*
MAINTAINING TIMING SYSTEMS	1	1	*	*
MAINTAINING TRANSMITTER SYSTEMS	15	11	5	*
MAINTAINING ANTENNA SYSTEMS	3	4	2	*
MAINTAINING RECEIVER SYSTEMS	6	7	4	*
MAINTAINING DISPLAY EQUIPMENT	4	4	2	*
MAINTAINING REMOTE EQUIPMENT	*	*	*	*
MAINTAINING ANCILLARY EQUIPMENT	*	1	*	*
MAINTAINING IDENTIFICATION FRIEND OR FOE(IFF) AND SELECTIVE IDENTIFICATION FEATURE (SIF) EQUIPMENT	2	3	2	*
MAINTAINING RANGE AND ANGLE TRACKING SYSTEMS	*	*	*	*
MAINTAINING COMPUTER SYSTEMS	*	*	*	*

*DENOTES LESS THAN ONE PERCENT

TABLE 8

DAFSC DISTRIBUTION FOR MAJOR JOB GROUPS

MAJOR JOB GROUPS	DAFSC 30332	30352	30372	30399	303X1	303X3
AC&W RADAR MAINTENANCE PERSONNEL	21	199	70			3
JUNIOR AC&W RADAR MAINTENANCE PERSONNEL	13	31	3			2
ANCILLARY MAINTENANCE PERSONNEL		2	3		5	
TACTICAL RADAR CREW MEMBERS	3	8				
JOB CONTROL PERSONNEL		28	13		13	18
RADAR MAINTENANCE SUPERVISORS		2	37	50	30	58
QUALITY CONTROL PERSONNEL		6	42	13	28	25
NCOICs, PLANS AND SCHEDULING		3	8		1	2
TACTICAL RADAR MAINTENANCE NCOICs		5	14			
RESIDENT COURSE INSTRUCTORS	1	12	9		22	8
NOT GROUPED	11	92	62	16	128	190
TOTAL	49	401	275	88	750*	661*

*THE 303X1 AND 303X3 COLUMNS DO NOT ADD UP TO 100 PERCENT DUE TO THE FACT THAT 303X1 AND 303X3 EXCLUSIVE JOBS ARE NOT LISTED

TABLE 9

REPRESENTATIVE TASKS PERFORMED BY DAFSC 30332 PERSONNEL

TASKS	PERCENT OF 3-SKILL LEVEL MEMBERS PERFORMING (N=49)
REMOVE OR REPLACE FUSES OR FUSE HOLDERS	84
REMOVE OR REPLACE RESISTORS	78
PERFORMING SOLDERING ON WIRING TERMINALS OR CONNECTOR PLUGS	76
PERFORM PMIs ON TRANSMITTER EQUIPMENT	73
REMOVE OR REPLACE RELAYS	73
REMOVE OR REPLACE CAPACITORS	73
PERFORM GENERAL HOUSEKEEPING PROCEDURES	71
PERFORM PMIs ON ANTENNA EQUIPMENT	69
PERFORM SOLDERING ON CIRCUIT BOARDS	69
PERFORM PMIs ON RECEIVER EQUIPMENT	67
PERFORM POWER SUPPLY OPERATIONAL CHECKS	63
PERFORM PMIs ON DISPLAY EQUIPMENT	59
REMOVE OR REPLACE SEMICONDUCTOR DEVICES	59
REMOVE OR REPLACE SWITCHES	59
PERFORM AREA BEAUTIFICATION	57
CLEAN OR REPLACE AIR OR MOISTURE FILTERS	57
INTERPRET PLANS, DIAGRAMS, OR SCHEMATICS	57
REMOVE OR REPLACE METERS	57
ADJUST POWER SUPPLIES OTHER THAN TRANSMITTER HIGH VOLTAGE POWER SUPPLIES	57
REMOVE OR REPLACE CRYSTALS	55
PREPARE MAINTENANCE DATA COLLECTION RECORD FORMS (AFTO FORM 349)	53
ADJUST VOLTAGE REGULATORS	53
ADJUST TRANSMITTER HIGH VOLTAGE POWER SUPPLIES	53
PERFORM CORROSION CONTROL ON ANTENNA PEDESTALS AND TOWERS	51
INSTALL OR REMOVE CRIMPED WIRING TERMINALS	49

TABLE 10

REPRESENTATIVE TASKS PERFORMED BY DAFSC 30352 PERSONNEL

TASKS	PERCENT OF 5-SKILL LEVEL MEMBERS PERFORMING (N=401)
REMOVE OR REPLACE RESISTORS	69
REMOVE OR REPLACE FUSES OR FUSE HOLDERS	67
PERFORM GENERAL HOUSEKEEPING PROCEDURES	65
REMOVE OR REPLACE ELECTRON TUBES	65
PERFORM SOLDERING ON WIRING TERMINALS OR CONNECTOR PLUGS	65
PERFORM PMIs ON TRANSMITTER EQUIPMENT	64
REMOVE OR REPLACE RELAYS	63
PERFORM PMIs ON RECEIVER EQUIPMENT	61
PERFORM PMIs ON ANTENNA EQUIPMENT	61
PERFORM SOLDERING ON CIRCUIT BOARDS	61
ADJUST POWER SUPPLIES OTHER THAN TRANSMITTER HIGH VOLTAGE POWER SUPPLIES	61
REMOVE OR REPLACE SEMICONDUCTOR DEVICES	60
REMOVE OR REPLACE CAPACITORS	60
REMOVE OR REPLACE SWITCHES	60
CLEAN OR REPLACE AIR OR MOISTURE FILTERS	59
LUBRICATE ANTENNA DRIVE SYSTEMS	57
REMOVE OR REPLACE TRANSFORMERS	56
PERFORM CORROSION CONTROL ON EQUIPMENT CABINETS OR RACKS	54
PERFORM POWER SUPPLY OPERATIONAL CHECKS	53
PERFORM CORROSION CONTROL ON ANTENNA PEDESTALS OR TOWERS	53
REMOVE OR REPLACE CATHODE-RAY TUBES	53
REMOVE OR REPLACE CRYSTALS	52
REMOVE OR REPLACE METERS	52
PERFORM PMIs ON DISPLAY EQUIPMENT	52
PREPARE MAINTENANCE DATA COLLECTION RECORD FORMS (AFTO FORM 349)	52

TABLE 11

TASKS WHICH BEST DIFFERENTIATE DAFSC 30332 AND 30352 PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING: 30332 PERSONNEL (N=49)	30352 PERSONNEL (N=401)	DIFFERENCE
REMOVE OR REPLACE FUSES OR FUSE HOLDERS	84	67	+17
MAINTAIN SUPPORT EQUIPMENT, SUCH AS MOTOR GENERATORS, GROUND HEATERS, OR AIR COMPRESSORS	29	13	+16
PERFORM AREA BEAUTIFICATION	57	43	+14
REMOVE OR REPLACE DUMMY LOADS	37	24	+13
REMOVE OR REPLACE CAPACITORS	73	60	+13
INSTALL OR DISASSEMBLE LONG RANGE SEARCH RADAR SYSTEMS	16	5	+11
DETERMINE LOCATIONS OF SHORTS OR OPENS IN CABLE RUNS	49	38	+11
INTERPRET PLANS, DIAGRAMS, OR SCHEMATICS	57	46	+11
BLEED WAVEGUIDE PRESSURIZER/DEHYDRATOR SYSTEMS	43	42	+ 1
PREPARE REPARABLE ITEM PROCESSING TAG FORMS (AFTO FORM 350)	42	42	*
PREPARE MAINTENANCE DATA COLLECTION RECORD FORMS (AFTO FORM 349)	53	53	*
REMOVE OR REPLACE SWITCHES	59	59	*
CHECK TRANSMITTER PULSE TRANSFORMER OIL	47	47	*
REMOVE OR REPLACE INTERNAL CHASSIS WIRING	39	39	*
ISOLATE IFF/SIF TRANSMITTER MALFUNCTIONS	10	28	-18
FABRICATE CABLE HARNESSES	12	30	-18
ALIGN IFF/SIF RECEIVERS	14	33	-19
ISOLATE IFF/SIF RECEIVER MALFUNCTIONS	10	29	-19
PREPARE TECHNICAL ORDER SYSTEM PUBLICATION IMPROVEMENT REPORT AND REPLY FORMS (AFTO FORM 22)	8	30	-24
PREPARE APRs	2	26	-24
SUPERVISE AIRCRAFT CONTROL AND WARNING (AC&W) RADAR SPECIALISTS (AFSC 30352)	2	26	-24
CONDUCT OJT	2	34	-32

* DENOTES LESS THAN ONE PERCENT

TABLE 12

REPRESENTATIVE TASKS PERFORMED BY DAFSC 30372 PERSONNEL

TASKS	PERCENT OF 7-SKILL LEVEL MEMBERS PERFORMING (N=275)
PARTICIPATE IN MEETINGS, SUCH AS STAFF MEETINGS, BRIEFINGS, CONFERENCES, OR WORKSHOPS	67
PREPARE APRs	62
DETERMINE WORK PRIORITIES	61
COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED MATTERS	56
ORIENT NEWLY ASSIGNED PERSONNEL	55
WRITE CORRESPONDENCE	53
SUPERVISE AIRCRAFT CONTROL AND WARNING (AC&W) RADAR SPECIALISTS (AFSC 30352)	52
PERFORM SELF INSPECTIONS	50
REVIEW CORRESPONDENCE OR REPORTS	48
CONDUCT OJT	48
INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	47
MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	47
COUNSEL TRAINEES ON TRAINING PROGRESS	45
EVALUATE COMPLIANCE WITH PERFORMANCE STANDARDS	44
CERTIFY STATUS OF REPARABLE, SERVICEABLE, OR CONDEMNED PARTS	44
PLAN WORK ASSIGNMENTS	44
TYPE RECORDS, REPORTS, OR CORRESPONDENCE	43
PREPARE REPLIES TO INSPECTION REPORTS	43
ESTABLISH WORK SCHEDULES	43
PREPARE SUPPLY ISSUE/TURN-IN REQUESTS FORMS (AF FORM 2005)	43
PERFORM EQUIPMENT INSPECTIONS	40
IMPLEMENT SELF-INSPECTION PROGRAMS	40
INVENTORY SUPPLIES, EQUIPMENT, OR TOOLS	39

TABLE 13

TASKS WHICH BEST DIFFERENTIATE DAFSC 30352 AND 30372 PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING 30352 PERSONNEL (N=401)	30372 PERSONNEL (N=275)	DIFFERENCE
PERFORM SOLDERING ON WIRING TERMINALS OR CONNECTOR PLUGS	64	30	+34
REMOVE OR REPLACE RESISTORS	69	37	+32
CLEAN OR REPLACE AIR OR MOISTURE FILTERS	59	28	+31
PERFORM PMIs ON ANTENNA EQUIPMENT	61	32	+29
PERFORM PMIs ON RECEIVER EQUIPMENT	61	32	+29
LUBRICATE ANTENNA DRIVE SYSTEMS	57	30	+27
PERFORM POWER SUPPLY OPERATIONAL CHECKS	53	28	+25
PERFROM CORROSION CONTROL ON EQUIPMENT CABINETS OR RACKS	54	30	+24
PREPARE SUPPLY ISSUE/TURN-IN REQUESTS FORMS (AF FORM 2005)	47	44	+ 3
DRIVE HEAVY DUTY VEHICLES, SUCH AS 1½ TON TRUCKS OR 10 TON TRACTOR-TRAILER COMBINATIONS	26	23	+ 3
DRIVE SMALL GOVERNMENT VEHICLES, SUCH AS PICKUPS OR PASSENGER VEHICLES	40	37	+ 3
MAINTAIN BENCHMARK PARTS OR EQUIPMENT LEVELS	24	24	*
PERFORM OPERATOR MAINTENANCE ON VEHICLES	26	24	- 2
MAINTAIN PRECISION MEASUREMENT EQUIPMENT (PME) CALIBRATION SCHEDULES	22	25	- 3
EVALUATE COMPLIANCE WITH PERFORMANCE STANDARDS	12	44	-32
ESTABLISH WORK SCHEDULES	10	43	-33
PREPARE REPLIES TO INSPECTION REPORTS	8	44	-36
PREPARE APRs	26	62	-36
REVIEW CORRESPONDENCE OR REPORTS	9	49	-40
PARTICIPATE IN MEETINGS, SUCH AS STAFF MEETINGS, BRIEFINGS, CONFERENCES, OR WORKSHOPS	27	67	-40
WRITE CORRESPONDENCE	11	53	-42

* DENOTES LESS THAN ONE PERCENT

TABLE 14

REPRESENTATIVE TASKS PERFORMED BY DAFSC 30399 PERSONNEL

TASKS	PERCENT OF 9-SKILL LEVEL MEMBERS PERFORMING (N=88)
PARTICIPATE IN MEETINGS, SUCH AS STAFF MEETINGS, BRIEFINGS, CONFERENCES, OR WORKSHOPS	94
WRITE CORRESPONDENCE	84
REVIEW CORRESPONDENCE OR REPORTS	83
COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED MATTERS	76
INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	75
PREPARE REPLIES TO INSPECTION REPORTS	73
ESTABLISH ORGANIZATIONAL POLICIES, OFFICE INSTRUCTIONS (OI) OR STANDARD OPERATING PROCEDURES (SOP)	72
ORIENT NEWLY ASSIGNED PERSONNEL	72
PREPARE RECOMMENDATIONS FOR AWARDS OR DECORATIONS	70
PREPARE APRs	69
DETERMINE WORK PRIORITIES	69
EVALUATE INSPECTION REPORTS OR PROCEDURES	68
DETERMINE REQUIREMENTS FOR SPACE, PERSONNEL, EQUIPMENT, OR SUPPLIES	68
SCHEDULE TEMPORARY DUTY, LEAVES, OR PASSES	67
EVALUATE INDIVIDUALS FOR RECOGNITION	66
INDORSE AIRMAN PERFORMANCE REPORTS (APR)	65
PREPARE BRIEFINGS	65
ASSIGN PERSONNEL TO DUTY POSITIONS	63
ANALYZE TRENDS IN SYSTEM MALFUNCTIONS	60
CONDUCT BRIEFINGS OTHER THAN CREW BRIEFINGS	59
DETERMINE TRANSPORTATION REQUIREMENTS	58
DRAFT LOCAL POLICY OR HIGHER HEADQUARTERS DIRECTIVES	58
EVALUATE MAINTENANCE PROCEDURES	56
IMPLEMENT SELF-INSPECTION PROCEDURES	56

TABLE 15

TASKS WHICH BEST DIFFERENTIATE DAFSC 30372 AND 30399 PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING 30372 PERSONNEL (N=275)	30399 PERSONNEL (N=88)	DIFFERENCE
SUPERVISE AIRCRAFT CONTROL AND WARNING RADAR SPECIALISTS (AFSC 30352)	52	18	+34
REMOVE OR REPLACE RESISTORS	37	4	+33
PERFROM PMIs ON TRANSMITTER EQUIPMENT	33	2	+31
REMOVE OR REPLACE SEMICONDUCTOR DEVICES	36	5	+31
PERFORM PMIs ON RECEIVER EQUIPMENT	32	2	+30
ADJUST WAVEGUIDE PRESSURIZER/DEHYDRATOR SYSTEMS	29	*	+29
CHECK TRANSMITTER PULSE TRANSFORMER OIL	28	*	+28
REMOVE OR REPLACE CIRCUIT BREAKERS	31	5	+26
MAINTAIN ADMINISTRATIVE OR RECORDS FILES	37	35	+ 2
MAINTAIN STATUS BOARDS, GRAPHS, OR CHARTS	35	33	+ 2
IMPLEMENT QUALITY CONTROL STANDARDS	34	34	*
PERFORM WORK AREA SECURITY INSPECTIONS	31	33	- 2
PERFORM ACCEPTANCE INSPECTIONS	22	24	- 2
PERFORM SELF-INSPECTIONS	50	53	- 3
ESTABLISH WORK SCHEDULES	43	46	- 3
EVALUATE INDIVIDUALS FOR RECOGNITION	33	66	-33
CONDUCT BRIEFINGS OTHER THAN CREW BRIEFINGS	25	59	-34
PREPARE AGENDA FOR STAFF MEETINGS	10	44	-34
ASSIGN PERSONNEL TO DUTY POSITIONS	26	62	-36
DRAFT LOCAL POLICY OR HIGHER HEADQUARTERS DIRECTIVES	19	58	-39
SUPERVISE MILITARY PERSONNEL WITH AFSs OTHER THAN 303X1, 303X2, OR 303X3	14	53	-39
DETERMINE TRANSPORTATION REQUIREMENTS	17	58	-41
ESTABLISH ORGANIZATIONAL POLICIES, OFFICE INSTRUCTIONS (OI), OR STANDARD OPERATING PROCEDURES (SOP)	28	72	-44

* DENOTES LESS THAN ONE PERCENT

COMPARISON OF SURVEY DATA TO AFR 39-1 SPECIALTY DESCRIPTIONS

Survey data for the 303X2 career ladder were compared to AFR 39-1 Specialty Descriptions, dated 1 June 1977 (for DAFSCs 30312, 30332, 30352, and 30372) and 30 April 1979 (for DAFSC 30399). These descriptions are intended to give a broad overview of the duties and tasks required to be performed by the various skill level personnel. Overall, the 3-, 5-, 7-, and 9-skill level descriptions were found to provide a clear, concise overview of the major duties and tasks performed by 303X2 incumbents.

ANALYSIS OF EXPERIENCE (TAFMS) GROUPS

In addition to the skill level analysis, survey respondents were also examined on the basis of months of Total Active Federal Military Service (TAFMS). This analysis helps to determine how jobs and job perceptions change over time, and can help describe the types of jobs more junior 303X2 personnel can look forward to performing in the future.

As expected, no major deviations from the usual pattern of increasing time spent on supervisory duties with increasing months TAFMS were noted (see Table 16). Generally, junior airmen spend more time performing technical radar maintenance functions, such as performing preventive maintenance or maintaining transmitter systems, while senior incumbents spend more time on directing and implementing or inspecting and evaluating duties.

Job Satisfaction Analysis

Job satisfaction indices for personnel in the first enlistment (1-48 months TAFMS), second enlistment (49-96 months TAFMS), and career (97+ months TAFMS) groups were also examined. Job interest, perceived utilization of talents or training, and reenlistment intentions are presented in Table 17, along with the comparative sample for personnel from all related career ladders analyzed in 1979. (These comparative sample career ladders included career ladders from the 304XX, 306XX, 316XX, 321XX, 328XX, 423XX, 427XX, and 461XX career fields). When compared to the comparative sample, 303X2 first enlistment personnel generally have about the same job satisfaction indicators, except for the somewhat lower reenlistment intentions for 303X2 first enlistment personnel (27 percent planning to reenlist versus 34 percent). DAFSC 303X2 second enlistment personnel are slightly less satisfied with their job than the comparative sample, with only 51 percent of 303X2 second enlistment personnel finding their job interesting, and only 42 percent planning to reenlist. Finally, career 303X2 personnel tend to follow the same trend as second enlistment personnel in that somewhat lower percentages of 303X2 career personnel find their job interesting, plan to reenlist, or perceive their job as utilizing their talents or training at least fairly well.

First Enlistment Personnel

First enlistment personnel were also examined on the basis of both common tasks performed and various background information. Table 18 lists those tasks performed by the greatest percentages of 303X2 first enlistment (1-48 months incumbents). Generally, these most common tasks involve some aspect of general or preventive maintenance, such as removing resistors, performing soldering on wiring terminals or connector plugs, performing PMIs on transmitter equipment, or performing corrosion control on equipment cabinets or racks.

Although the tasks listed in Table 18 are characteristic of most first enlistment personnel, other functions performed by these incumbents vary somewhat depending on the job they perform. Figure 2 presents the distribution of 303X2 first enlistment personnel across job groups identified in the CAREER LADDER STRUCTURE section. As expected, almost 70 percent of first enlistment personnel are identified in either the AC&W Radar Maintenance Personnel or Junior AC&W Radar Maintenance Personnel cluster. Tasks which are typically performed by first enlistment personnel in the major job groups on Figure 2 include:

AC&W Radar Maintenance Personnel

perform PMIs on transmitter equipment
lubricate antenna drive systems
interpret plans, schematics, or diagrams
perform PMIs on display equipment

Junior AC&W Radar Maintenance Personnel

perform PMIs on antenna equipment
remove or replace resistors
perform corrosion control on equipment cabinets or racks
adjust voltage regulators

Job Control Personnel

prepare job/status document forms (AF Form 264)
issue job control numbers
document equipment cannibalization
determine work priorities

Resident Course Instructors

prepare lesson plans
conduct resident course classroom training
develop training aids
score tests

In addition to an analysis of tasks, various pieces of radar equipment maintained or test equipment utilized by first enlistment personnel were examined. Table 19 reveals that radar equipment such as the AN/GPA-127, AN/UPX-14 or the AN/FPS-6/90 radar are maintained by the highest percentages of first enlistment personnel. Table 19 also reveals high voltage probes, meg-ohm meters, insulation breakdown testers, or standing wave ratio meters are among the most common types of test equipment utilized by first enlistment personnel.

TABLE 16

RELATIVE PERCENT TIME SPENT ON DUTIES
BY 303X2 TAFMS GROUPS

DUTIES	MONTHS TAFMS 1-48 (N=211)	49-96 (N=157)	97-144 (N=108)	145-192 (N=107)	193-240 (N=108)	241+ (N=33)
ORGANIZING AND PLANNING	*	4	4	8	12	14
DIRECTING AND IMPLEMENTING	1	3	5	9	12	18
INSPECTING AND EVALUATING	2	5	8	17	19	25
TRAINING	2	5	5	11	11	10
PERFORMING ADMINISTRATIVE AND SUPPLY FUNCTIONS	8	11	15	14	17	20
PERFORMING OPERATIONS FUNCTIONS	10	7	5	3	2	2
PERFORMING SITE SUPPORT FUNCTIONS	4	5	4	2	4	5
PERFORMING RADAR SYSTEM INSTALLATION AND REMOVAL FUNCTIONS	4	5	6	3	3	*
PERFORMING GENERAL AND PREVENTIVE MAINTENANCE	30	19	18	10	7	2
MAINTAINING POWER AND DISTRIBUTION EQUIPMENT	4	3	3	1	*	*
MAINTAINING TIMING SYSTEMS	1	2	1	*	*	*
MAINTAINING TRANSMITTER SYSTEMS	15	10	10	7	3	*
MAINTAINING ANTENNA SYSTEMS	4	4	3	3	2	*
MAINTAINING RECEIVER SYSTEMS	8	7	6	5	3	*
MAINTAINING DISPLAY EQUIPMENT	5	5	3	2	2	*
MAINTAINING REMOTE EQUIPMENT	*	*	*	*	*	*
MAINTAINING ANCILLARY EQUIPMENT	*	2	*	1	*	*
MAINTAINING IDENTIFICATION FRIEND OR FOE (IFF) AND SELECTIVE IDENTIFICATION FEATURE (SIF) EQUIPMENT	3	4	3	2	*	*
MAINTAINING RANGE AND ANGLE TRACKING SYSTEMS	*	*	*	*	*	*
MAINTAINING COMPUTER SYSTEMS	*	*	*	*	*	*

* DENOTES LESS THAN ONE PERCENT

TABLE 17

JOB SATISFACTION AND RELATED DATA FOR 303X2
FIRST ENLISTMENT (1-48 MONTHS TAFMS), SECOND ENLISTMENT (49-96 MONTHS TAFMS), CAREER (97+ MONTHS TAFMS), AND COMPARATIVE SAMPLE PERSONNEL
(PERCENT MEMBERS RESPONDING)

	MONTHS TAFMS					
	1-48		49-96		97+	
	(N=211)	1979 COMP SAMPLE* (N=6,124)	(N=157)	1979 COMP SAMPLE* (N=2,789)	(N=356)	1979 COMP SAMPLE* (N=4,643)
I FIND MY JOB:						
NO RESPONSE	-	2	1	2	-	2
DULL	27	19	29	19	16	11
SO-SO	20	23	19	22	16	13
INTERESTING	53	56	51	57	68	74
MY JOB UTILIZES MY TALENTS:						
NO RESPONSE	1	1	1	1	-	1
NOT AT ALL TO VERY LITTLE	38	34	38	31	25	19
FAIRLY WELL OR BETTER	61	65	61	68	75	80
MY JOB UTILIZES MY TRAINING:						
NO RESPONSE	-	1	1	1	1	1
NOT AT ALL TO VERY LITTLE	32	40	31	33	26	23
FAIRLY WELL OR BETTER	68	59	68	66	73	76
I PLAN TO REENLIST:						
NO RESPONSE	-	2	-	2	-	2
NO, PLANNING TO RETIRE	-	-	1	-	28	-
NO OR PROBABLY NO	73	64	57	47	15	29
YES OR PROBABLY YES	27	34	42	51	57	69

* (INCLUDES PERSONNEL IN AFSCs 304XX, 306XX, 316XX, 321XX, 328XX, 423XX, 427XX, AND 461XX)

TABLE 18

REPRESENTATIVE TASKS PERFORMED BY 303X2 FIRST ENLISTMENT
(1-48 MONTHS TAFMS) PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASKS	FIRST ENLISTMENT PERSONNEL (N=211)
REMOVE OR REPLACE RESISTORS	78
REMOVE OR REPLACE FUSES OR FUSE HOLDERS	77
PERFORM SOLDERING ON WIRING TERMINALS OR CONNECTOR PLUGS	73
REMOVE OR REPLACE ELECTRON TUBES	73
PERFORM PMIs ON TRANSMITTER EQUIPMENT	72
REMOVE OR REPLACE RELAYS	71
REMOVE OR REPLACE CAPACITORS	70
PERFORM GENERAL HOUSEKEEPING PROCEDURES	70
PERFORM PMIs ON RECEIVER EQUIPMENT	68
PERFORM SOLDERING ON CIRCUIT BOARDS	66
REMOVE OR REPLACE SEMICONDUCTOR DEVICES	64
REMOVE OR REPLACE SWITCHES	64
PERFORM PMIs ON ANTENNA EQUIPMENT	64
CLEAN OR REPLACE AIR OR MOISTURE FILTERS	63
PERFORM POWER SUPPLY OPERATIONAL CHECKS	62
REMOVE OR REPLACE CRYSTALS	61
LUBRICATE ANTENNA DRIVE SYSTEMS	59
PERFORM PMIs ON DISPLAY EQUIPMENT	56
PERFORM CORROSION CONTROL ON EQUIPMENT CABINETS OR RACKS	55
INSTALL OR REMOVE CRIMPED WIRING TERMINALS	51
CONDUCT TEST CABLES OR TEST PLUGS	51
ADJUST TRANSMITTER HIGH VOLTAGE POWER SUPPLIES	51
LUBRICATE MECHANICAL BEARING SURFACES	51
PERFORM OPERATIONAL CHECKS OF TRANSMITTERS	50
INTERPRET PLANS, DIAGRAMS, OR SCHEMATICS	48

FIGURE 2

JOB GROUP DISTRIBUTION FOR FIRST ENLISTMENT 303X2 AIRMEN
(N=211)

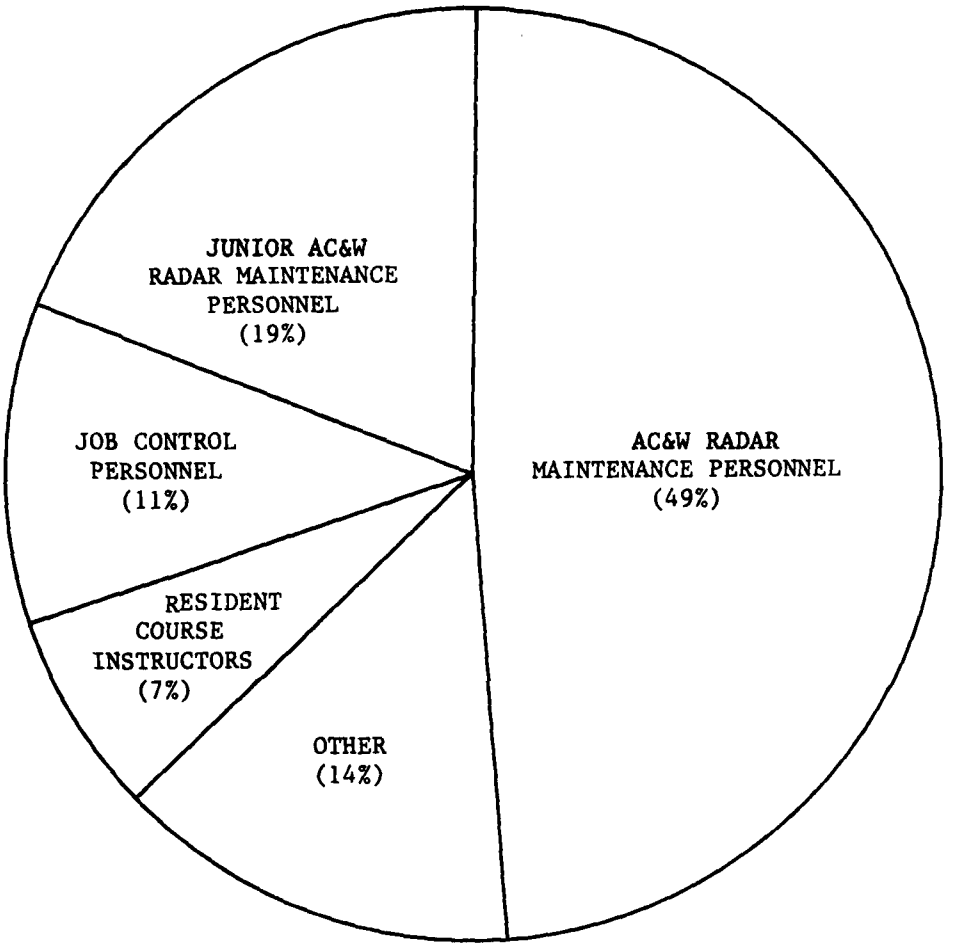


TABLE 19

TYPES OF RADAR EQUIPMENT MAINTAINED AND TEST EQUIPMENT UTILIZED BY FIRST ENLISTMENT PERSONNEL

RADAR EQUIPMENT	PERCENT MEMBERS MAINTAINING (N=211)
AN/GPA-127 RADAR INDICATOR	41
AN/UPX-14 INTERROGATOR SET	34
AN/FPS-6/90 FAMILY RADARS	29
AN/UPX-23 INTERROGATOR SYSTEM	24
AN/UPM-137 INTERROGATOR TEST SET	24
AN/UPA-62 SERIES RADAR INDICATOR	24
AN/UPX-21 INTERROGATOR SYSTEM	24
AN/TPS-43E RADAR SET	24
AN/FPS-107 RADAR SET	21
AN/FPS-20 FAMILY RADAR	20
SG-296 RANGE/ANGLE MARK GENERATOR	17
AN/GPS-T4 RADAR TARGET SIMULATOR	17

TEST EQUIPMENT	PERCENT MEMBERS UTILIZING (N=211)
HIGH VOLTAGE PROBES	57
MEG-OHM METERS	55
INSULATION BREAKDOWN TESTERS	51
COUPLERS	50
STANDING WAVE RATIO METERS	41
NOISE FIGURE METERS	35
TRANSISTOR TESTERS	31
DIAL INDICATORS	26
HIGH VOLTAGE MODULATOR DUMMIES	26
IMPEDANCE BRIDGES	26
PACE KITS	19
PRINTED CIRCUIT CARD TEST SETS	19

ANALYSIS OF MAJOR COMMAND DIFFERENCES

An analysis of the tasks and duties performed by MAJCOM groups can highlight important differences. In many specialties, the jobs performed by various groups of personnel differs little across MAJCOMs, however, this is not the case with the 303X2 specialty. The six largest users of 303X2 personnel (AFSC, AFCC, PACAF, TAC, ATC, and USAFE) were examined, and four MAJCOMs had personnel performing distinguishing tasks. In other words, the jobs performed by 303X2 personnel assigned to AFSC, PACAF, ATC, and USAFE are somewhat different from the jobs performed by other MAJCOM personnel.

Given below are brief job descriptions concerning the four "unique" users of 303X2 personnel. In addition, four tables at the end of this section provide job and background information for each of the six MAJCOM groups identified above. For an overall view of how the jobs vary among MAJCOM groups, Table 20 reveals the relative percent of job time spent performing duties. For example, AFCC personnel spend 16 percent of their job time performing general and preventive maintenance, and eight percent of their time maintaining transmitter systems. Table 21 lists representative tasks which best differentiate MAJCOM groups, and seems to reflect many of the job trends identified in Table 20. Table 21 reveals only four of the MAJCOM groups are performing differentiating tasks. For example, mobility type tasks, such as striking tents or installing mobile IFF/SIF antennas, are performed by substantial percentages of USAFE personnel, while TAC personnel were not found to be performing any differentiating tasks. Table 22 lists various types of background information for MAJCOM groups, and reveals that 25 percent of AFCC personnel are in their first enlistment, 41 percent maintain AN/FPS-20 family radars, and 52 percent hold the 5-skill level. Finally, Table 23 reveals various job satisfaction and related data for each MAJCOM group. PACAF personnel appear to be the most satisfied, with 82 percent finding their job interesting and 68 percent planning to reenlist.

AFSC

The seven personnel assigned to AFSC report spending 26 percent of their job time performing inspecting and evaluating tasks. These respondents seem to be responsible for modifying and updating existing radars and associated equipment, or for validating new equipment. Differentiating tasks performed by these incumbents include constructing circuitry, constructing test equipment jigs, or fabricating cable harnesses. These incumbents are fairly senior, with 72 percent holding the 7-skill level and averaging 155 months TAFMS. Job satisfaction data reveals these incumbents are relatively dissatisfied with their job, with only 57 percent perceiving their talents and training are being utilized at least fairly well.

PACAF

Only 16 incumbents stated they were assigned to PACAF, and they are distinguished by several of the radar maintenance type tasks they perform. Several tasks involving antennas were identified as being performed

by substantially higher percentages of PACAF respondents, such as aligning antenna position control units, replacing antenna drive motors, and isolating antenna position control unit malfunctions. It is also interesting to note that these personnel perform the highest average number of tasks (170), and 63 percent report maintaining the AN/GPA-122 coder/decoder set. In addition, job satisfaction data reveals these personnel seem to enjoy their job, with 82 percent finding their job interesting and 68 percent planning to reenlist.

ATC

The respondents assigned to this MAJCOM are primarily responsible for conducting the various aspects of AC&W resident classroom training at Keesler AFB MS. Somewhat expectedly, these incumbents perform a relatively low number of tasks (21), almost all of which involve some aspect of resident training. Typical tasks performed by these respondents include writing test questions, developing training aids, and evaluating progress of resident course students. These incumbents are also relatively senior, with only 18 percent in their first enlistment and averaging 145 months TAFMS.

USAFE

The 102 personnel assigned to USAFE are differentiated due to the large amount of job time (11 percent) they spend performing radar system installation and removal functions. These incumbents seem to have a mobile AC&W radar mission in Europe. Differentiating tasks performed by these incumbents are all mobility related, and include preparing radar vans for shipment, erecting mobile radar antennas, or developing inputs to mobility plans. A review of background information reveals 75 percent of these incumbents maintain the AN/TPS-43E and 32 percent maintain the AN/GPA-13. Job satisfaction indicators appear to be about average, with 63 percent planning to reenlist.

Summary

The jobs performed by 303X2 personnel can vary considerably depending on the MAJCOM assigned. Four of the six MAJCOMs in which 303X2 personnel are assigned were found to be performing relatively distinct tasks. AFSC personnel seem to be involved with equipment modifications or redesign. PACAF personnel are more likely to do several types of antenna maintenance tasks than other MAJCOM groups. ATC personnel are responsible for conducting resident course classroom training. Finally, USAFE personnel are performing a mobile AC&W radar mission. Overall, AFSC personnel are the least satisfied, PACAF personnel the most satisfied, and AFCC, TAC, USAFE, and ATC personnel fall somewhere in between.

TABLE 20

RELATIVE PERCENT TIME SPENT ON DUTIES BY 303X2 MAJOR COMMAND GROUPS

DUTIES	AFSC PERSONNEL (N=7)	AFCC PERSONNEL (N=87)	PACAF PERSONNEL (N=16)	TAC PERSONNEL (N=47)	ATC PERSONNEL (N=38)	USAFE PERSONNEL (N=102)
ORGANIZING AND PLANNING	5	7	10	4	4	7
DIRECTING AND IMPLEMENTING	5	7	7	5	7	6
INSPECTING AND EVALUATING	26	13	11	9	3	10
TRAINING	*	4	2	3	70	3
PERFORMING ADMINISTRATIVE AND SUPPLY FUNCTIONS	9	11	11	13	6	11
PERFORMING OPERATIONS FUNCTIONS	7	8	4	5	2	5
PERFORMING SITE SUPPORT FUNCTIONS	4	6	3	4	*	5
PERFORMING RADAR SYSTEM INSTALLATION AND REMOVAL FUNCTIONS	2	2	*	3	*	11
PERFORMING GENERAL AND PREVENTIVE MAINTENANCE	16	16	18	20	4	16
MAINTAINING POWER AND DISTRIBUTION EQUIPMENT	2	3	3	3	*	2
MAINTAINING TIMING SYSTEMS	1	*	*	1	*	2
MAINTAINING TRANSMITTER SYSTEMS	12	8	7	11	1	6
MAINTAINING ANTENNA SYSTEMS	2	4	2	3	*	3
MAINTAINING RECEIVER SYSTEMS	4	5	7	7	2	5
MAINTAINING DISPLAY EQUIPMENT	*	3	6	4	*	2
MAINTAINING REMOTE EQUIPMENT	*	*	*	*	*	*
MAINTAINING ANCILLARY EQUIPMENT	4	*	3	*	*	*
MAINTAINING IDENTIFICATION FRIEND OR FOE (IFF) AND SELECTIVE IDENTIFICATION FEATURE (SIF) EQUIPMENT	*	*	6	2	*	5
MAINTAINING RANGE AND ANGLE TRACKING SYSTEMS	*	*	*	*	*	*
MAINTAINING COMPUTER SYSTEMS	*	*	*	*	*	*

* DENOTES LESS THAN ONE PERCENT

TABLE 21

REPRESENTATIVE TASKS WHICH BEST DIFFERENTIATE 303X2 MAJOR COMMAND GROUPS

TASKS	AFSC PERSONNEL	AFCC PERSONNEL	PACAF PERSONNEL	TAC PERSONNEL	ATC PERSONNEL	USAFE PERSONNEL
CONSTRUCT CIRCUITRY	43	2	6	3	-	7
DESIGN CIRCUITRY	29	2	6	2	-	2
FABRICATE CONDUITS	29	5	-	2	-	1
FABRICATE CABLE HARNESSES	57	20	44	27	-	27
CONSTRUCT JUNCTION BOXES	29	3	6	3	-	9
CONSTRUCT TEST EQUIPMENT JIGS	43	10	31	12	-	15
ALIGN TRANSMITTER MODULATOR CONTROL CIRCUITS	14	20	44	28	3	14
ALIGN ANTENNA POSITION CONTROL UNITS	14	20	44	24	-	24
ISOLATE ANTENNA POSITION CONTROL UNIT MALFUNCTIONS	14	9	38	11	-	4
REMOVE OR REPLACE ANTENNA DRIVE MOTORS	29	17	38	19	3	19
ADJUST PARAMETRIC AMPLIFIERS	14	3	44	6	-	5
ALIGN RECEIVER LOCAL OSCILLATORS	29	13	50	3	20	9
ADMINISTER TESTS	-	6	6	4	76	7
DEVELOP TRAINING AIDS	14	10	13	11	58	13
EVALUATE PROGRESS OF RESIDENT COURSE STUDENTS	-	1	6	3	63	3
PREPARE LESSON PLANS	-	7	13	4	84	3
SCORE TESTS	-	2	-	4	82	7
WRITE TEST QUESTIONS	-	2	-	3	61	10
CONDUCT SAFETY TRAINING	-	10	25	13	55	17
DEVELOP INPUTS TO MOBILITY PLANS	-	5	13	7	3	23
DRIVE HEAVY DUTY VEHICLES, SUCH AS 1½ TON TRUCKS OR 10 TON TRACTOR-TRAILER COMBINATIONS	-	7	19	19	3	74
PITCH OR STRIKE TENTS	-	-	6	12	3	72
ERECT MOBILE RADAR ANTENNAS	14	3	19	20	-	67
INSTALL OR DISASSEMBLE MOBILE IFF/SIF ANTENNAS	-	2	6	17	-	52
INSTALL OR REMOVE MOBILIZERS OR TRANSPORTERS	14	1	6	16	-	61
PREPARE RADAR VANS FOR SHIPMENT	-	2	-	17	-	46

TABLE 22

BACKGROUND INFORMATION FOR 303X2 MAJOR COMMAND GROUPS

	AFSC PERSONNEL	AFCC PERSONNEL	PACAF PERSONNEL	TAC PERSONNEL	ATC PERSONNEL	USAFE PERSONNEL
AVERAGE NUMBER OF TASKS PERFORMED:	125	88	170	134	21	147
AVERAGE PAYGRADE:	E-5	E-5	E-5	E-5	E-5	E-5
DAFSC:						
30332	14%	9%	-	8%	5%	-
30352	14%	52%	69%	56%	53%	58%
30372	72%	39%	31%	36%	42%	42%
30399	-	-	-	-	-	-
AVERAGE NUMBER OF PERSONNEL SUPERVISED:	-	2	1	1	1	1
AVERAGE MONTHS TAFMS:	155	111	122	108	145	124
PERCENT IN FIRST ENLISTMENT:	14%	25%	12%	35%	18%	14%
PERCENT LOCATED IN CONUS:	86%	72%	-	96%	100%	17%
WORK SHIFT:						
DAY	100%	67%	56%	50%	58%	62%
ROTATING EIGHT HOUR	-	15%	-	21%	-	8%
VARIABLE	-	6%	13%	13%	8%	19%
TYPE OF EQUIPMENT MAINTAINED:						
AN/FPS-20 FAMILY RADARS	29%	41%	25%	11%	3%	5%
AN/GPA-13 DEFRUITER	-	12%	-	16%	6%	32%
AN/GPA-122 CODER/DECODER SET	-	12%	63%	12%	3%	6%
AN/TPS-43E RADAR SET	-	12%	-	23%	8%	75%
AN/UPA-59A DECODER SET	-	10%	-	14%	6%	40%
AN/UPX-14 INTERROGATOR SET	-	22%	25%	27%	3%	4%

TABLE 23

JOB SATISFACTION DATA FOR 303X2 MAJOR COMMAND GROUPS
(PERCENT MEMBERS RESPONDING)

	AFSC PERSONNEL	AFCC PERSONNEL	PACAF PERSONNEL	TAC PERSONNEL	ATC PERSONNEL	USAFE PERSONNEL
I FIND MY JOB:						
NO RESPONSE	-	-	-	1	-	-
DULL	29	31	6	22	16	18
SO-SO	14	17	12	20	6	15
INTERESTING	57	52	82	57	78	67
MY JOB UTILIZES MY TALENTS:						
NO RESPONSE	-	-	-	-	-	-
NOT AT ALL TO VERY LITTLE	43	37	12	34	18	25
FAIRLY WELL OR BETTER	57	63	88	66	82	75
MY JOB UTILIZES MY TRAINING:						
NO RESPONSE	-	1	-	-	3	1
NOT AT ALL TO VERY LITTLE	43	37	12	28	26	28
FAIRLY WELL OR BETTER	57	62	88	72	71	71
I PLAN TO REENLIST:						
NO RESPONSE	-	-	-	-	-	-
NO, PLANNING TO RETIRE	14	13	13	15	16	8
NO OR PROBABLY NO	29	44	19	45	29	29
YES OR PROBABLY YES	57	43	68	40	55	63

COMPARISON TO PREVIOUS SURVEY

The results of this 303X2 survey were compared to those of a previous Occupational Survey Report, AFPT 90-303-080 dated December 1978. This analysis can help to identify changes in the career ladder due to new missions, changing management policies, new operational equipment, etc. Generally, the two studies reported relatively consistent findings, with differences appearing in the following areas:

A thorough analysis of tasks and jobs performed by first enlistment incumbents reveal no substantial changes have occurred in the types of tasks and jobs performed over the last three years. However, some changes have occurred in the types of equipment maintained and the percentages of first enlistment personnel maintaining the equipment. Table 24 lists the percentages of 1978 and 1981 first enlistment personnel maintaining various types of radars or radar equipment. The overall trend is that somewhat higher percentages of current first enlistment personnel maintain existing AC&W radars, particularly the AN/TPS-43E radar system. This new system is a digital AC&W mobile radar, and was first implemented into the field at about the time the 1978 survey was being conducted. This overall maintenance trend has some training implications, since increasing percentages of current first enlistment personnel maintain an increased number of AC&W radars and radar equipment.

Table 25 presents job satisfaction data for both 1978 and 1981 first, second, and career enlistment groups. While the tasks and overall jobs performed by first enlistment respondents have changed very little, some job satisfaction indicators have. Generally, 1978 first enlistment personnel were more satisfied with their job, with somewhat higher percentages of 1978 personnel finding their job interesting and planning to reenlist. The same job satisfaction trends can be noted for second enlistment personnel, with a higher percentage of 1978 incumbents finding their job interesting and perceiving their job utilizes their talents at least fairly well. Finally, an examination of job satisfaction data for 1978 and 1981 career personnel reveal the same trends as previous enlistment groups, with somewhat higher percentages of 1978 career respondents finding their job interesting and planning to reenlist.

A review of the 303X2 career ladder structure reveals no substantial job changes have occurred in the last three years. Table 26 lists the major job groups identified in 1978 and the equivalent major job groups identified in 1981. The biggest difference seems to occur with the Radar Repairmen cluster, with this 1978 major job group accounting for five major job groups identified in the 1981 report. However, this difference is minor, and the overall structure relatively stable.

TABLE 24

A COMPARISON BETWEEN THE EQUIPMENT MAINTAINED
BY 1978 AND 1981 FIRST ENLISTMENT PERSONNEL

EQUIPMENT OR SYSTEM	PERCENT MEMBERS MAINTAINING	
	1978	1981
AN/GPA-98	25	14
AN/FPS-26A	18	17
AN/FPS-27A	14	15
AN/FPS-90	11	29
AN/FPS-107	10	21
AN/GPA-127	42	41
O-15	10	16
AN/UPA-35	12	13
AN/UPX-14	38	34
AN/UPX-21	16	24
AN/TPS-43E	-	24

TABLE 25

A COMPARISON OF JOB SATISFACTION DATA FOR VARIOUS
ENLISTMENT GROUPS IN THE 1978 AND 1981 OSRs

	FIRST ENLISTMENT		SECOND ENLISTMENT		CAREER	
	1978	1981	1978	1981	1978	1981
FINDS JOB INTERESTING:	60	53	63	51	74	68
UTILIZES TALENTS WELL:	69	61	79	61	86	75
UTILIZES TRAINING WELL:	76	68	80	68	84	73
INTENDS TO REENLIST:	39	27	54	42	64	57

TABLE 26

A COMPARISON OF THE MAJOR JOB GROUPS IDENTIFIED
IN THE 1978 AND 1981 OSRs

1978 CLUSTERS AND INDEPENDENT JOB TYPES	1981 CLUSTERS AND INDEPENDENT JOB TYPES
SUPERVISORS AND MANAGERS	RADAR MAINTENANCE SUPERVISORS
QUALITY CONTROLLERS	QUALITY CONTROL PERSONNEL
PLANNERS AND SCHEDULERS	NCOICs, PLANS AND SCHEDULING
RADAR EVALUATORS	-
JOB CONTROLLERS	JOB CONTROL PERSONNEL
RADAR REPAIRMEN	AC&W RADAR MAINTENANCE PERSONNEL ANCILLARY MAINTENANCE PERSONNEL TACTICAL RADAR CREW MEMBERS TACTICAL RADAR MAINTENANCE NCOICs JUNIOR AC&W RADAR MAINTENANCE PERSONNEL
INSTRUCTORS	RESIDENT COURSE INSTRUCTORS

TRAINING ANALYSIS

Occupational survey data is just one of the many sources of information which can be used to help make training programs more meaningful and relevant to students. Factors provided in occupational surveys which may be used in evaluating training are the percent of first enlistment members *performing task(s)*, utilization of equipment available at the technical school for training, and task diffculty ratings. These factors can be used in evaluating the Specialty Training Standard (STS) and Plan of Instruction (POI) for the 303X2 specialty. Technical school personnel at Keesler AFB MS matched inventory tasks to areas of instruction outlined in the STS, dated November 1977 and the POI for course 3ABR30332, dated January 1979. A complete computer listing of the percent members performing and task diffculty ratings for each task statement along with the STS and POI matching has been forwarded to the technical school for their use in reviewing training documents. A summary of that information is described below.

Analysis of Task Difficulty

The relative difficulty of each task in the task inventory was assessed through ratings of 40 experienced 7- and 9-skill level Aircraft Control and Warning Radar NCOs. These tasks were processed to produce an ordered listing of all tasks in terms of their relative difficulty and were standardized to have an average difficulty of 5.0 (standard deviation equals 1.0). It is important to note that this task difficulty task listing is somewhat different than the task listing presented in AFPT 90-303-400, Volume I. The task difficulty analysis in this report uses only the ratings from 303X2 task difficulty raters, while the AFPT 90-303-400, Volume I training analysis utilizes the combined ratings from the personnel in three specialties (AFSs 303X1, 303X2, and 303X3). Because the personnel in different specialties may view the difficulty of tasks somewhat differently than the personnel in another specialty, it is important to use only specialty specific raters when analyzing specialty specific documents, such as the STS or POI. Therefore, the analysis of task difficulty, along with the analysis of the 303X2 STS and POI will only use the ratings of 303X2 personnel. (For a more complete description of these ratings, see the Task Factor Administration section in the INTRODUCTION.)

In order to help insure that the 303X2 raters reflect the same perceptions as the rest of the career ladder concerning task difficulty, it is necessary that a representative sample of task difficulty raters be obtained. Table 27 reveals the major command distribution of the task difficulty raters versus the same distribution of all the personnel assigned to the 303X2 specialty, and reveals a representative sample of task difficulty raters. Having a representative sample is extremely important, especially when the personnel in different major commands utilize or maintain different types of equipment, because a large overrepresentation of one major command may lead to spurious task difficulty ratings. This was not the case with the 303X2 task difficulty ratings.

Table 28 lists the tasks rated the most difficult by 303X2 task difficulty raters. These tasks seem to be either maintenance or supervisory in nature, and include isolating digital height computer and evaluation system malfunctions, aligning television (TV) cameras, evaluating budgeting requirements, or conducting resident course classroom training. Overall, very few of the tasks rated the most difficult are performed by more than 15 percent of the total 303X2 sample.

In order to determine some of the more common tasks 303X2 perform which are above average in difficulty, Table 29 is provided. Table 29 reveals that transmitter or IFF/SIF maintenance tasks, such as isolating transmitter modulator malfunctions, isolating transmitter STALO malfunctions, aligning IFF/SIF receivers, or isolating IFF/SIF transmitter malfunctions are performed by at least 20 percent of the total 303X2 sample and are perceived to be above average in difficulty by 303X2 task difficulty raters.

Most of the tasks rated average in difficulty are also maintenance oriented, but involve adjusting, removing, or replacing type tasks instead of tasks involving the isolation of malfunctions. Some of these tasks rated average in difficulty include adjusting video amplifiers, adjusting transmitter amplifier mixers, removing or replacing antenna drive motors, or performing radar to computer marriage checks (see Table 30). Generally, a greater percentage of 303X2 personnel perform tasks of average difficulty than the tasks rated the most difficult.

Table 31 lists the tasks rated the least difficult by senior 303X2 personnel. Generally, these tasks involve routine maintenance or the upkeep of radar facilities, such as lubricating van chassis, performing area beautification, lacing wiring assemblies, or performing general housekeeping procedures. As expected, most of the tasks rated the least difficult are performed by substantial percentages of 303X2 personnel.

Analysis of the 303X2 Specialty Training Standard

The 303X2 Specialty Training Standard (STS), dated November 1977, was reviewed for first enlistment (1-48 months TAFMS) and 5- and 7-skill level AC&W Radar personnel. Subject matter specialists at the Keesler Technical Training Center assisted in the analysis by matching job inventory tasks to specific paragraphs in the STS. Each paragraph in the STS was analyzed using task difficulty and percent members performing vectors to determine if the paragraph had job inventory justification for being in the STS. For the 303X2 specialty, the STS was found to give a broad overview of the career ladder, and all STS paragraphs appear to be well justified based on occupational data.

Analysis of the 3ABR30332 Plan of Instruction (POI)

The Plan of Instruction (POI) for course 3ABR30332, dated January 1979 was also reviewed for first job (1-24 months TAFMS), first enlistment (1-48 months TAFMS), and second enlistment (49-96 months TAFMS) groups. As with the STS, subject matter specialists at the Keesler Technical Training

Center also assisted in the analysis by matching job inventory tasks to specific criterion objectives in the 3ABR30332 POI. In addition, each criterion objective was examined based on task difficulty and percent members performing vectors to determine if the survey data supports the basic 3ABR course. Overall, the criterion objectives were well supported, and no major discrepancies were noted. In addition, computer printouts were provided to technical school personnel for the refinement and validation of future 3ABR30332 resident course and 303X2 STS changes.

TABLE 27

REPRESENTATION OF 303X2 TASK DIFFICULTY RATERS

MAJOR COMMAND	PERCENT OF ASSIGNED	PERCENT OF TASK DIFFICULTY RATERS
AFCC	13	10
ATC	4	10
SAC	*	2
TAC	58	53
USAFE	17	10
PACAF	3	3
AFSC	2	5
AAC	*	5
OTHER	3	2
TOTAL	100	100

*DENOTES LESS THAN ONE PERCENT

TABLE 28

REPRESENTATIVE TASKS RATED THE MOST DIFFICULT BY 303X2 RATERS

TASKS	TASK DIFFICULTY	PERCENT OF 303X2 PERSONNEL PERFORMING (N=724)
DESIGN CIRCUITRY	9.51	2
ISOLATE DIGITAL HEIGHT COMPUTER AND EVALUATION SYSTEM MALFUNCTIONS	7.47	11
PREPARE CIVILIAN PERFORMANCE RATINGS OR SUPERVISORY APPRAISALS	7.39	1
DEVELOP TRAINING COURSE OR CAREER DEVELOPMENT COURSE (CDC) CURRICULUM MATERIALS	7.31	2
ALIGN TELEVISION (TV) CAMERAS	7.29	*
ISOLATE ANALOG TO DIGITAL CONVERTER MALFUNCTIONS	7.10	14
ISOLATE DIGITAL MTI CANCELLATION SYSTEM MALFUNCTIONS	7.10	14
EVALUATE BUDGETING OR FINANCIAL REQUIREMENTS	7.09	2
PLAN LAYOUT OF FACILITIES	7.04	6
PREPARE RECOMMENDATIONS FOR AWARDS OR DECORATIONS	7.04	17
ISOLATE DIGITAL MTI RECEIVER MALFUNCTIONS	7.00	14
ISOLATE TRIGGER OR PULSE DIGITAL SYNCHRONIZER MALFUNCTIONS	6.99	9
ISOLATE DUAL VIDEO DISTRIBUTION LINE AMPLIFIER MALFUNCTIONS	6.95	*
ISOLATE ANALOG MTI RECEIVER MALFUNCTIONS	6.95	12
ESTABLISH HOST TENANT SUPPORT AGREEMENTS	6.92	3
CONDUCT RESIDENT COURSE CLASSROOM TRAINING	6.90	5
ISOLATE AIRCRAFT SIMULATOR COMPUTER MALFUNCTIONS	6.86	1
EVALUATE CONTRACTOR PERFORMANCE	6.85	5
ESTABLISH ORGANIZATIONAL POLICIES, OFFICE INSTRUCTIONS (OI), OR STANDARD OPERATING PROCEDURES (SOP)	6.84	13
ISOLATE IFF/SIF DEFRUITER MALFUNCTIONS	6.84	14
ISOLATE DIGITAL VIDEO PROCESSOR SYSTEMS MALFUNCTIONS	6.81	10
ISOLATE FREQUENCY AGILITY SYSTEM MALFUNCTIONS	6.78	13
INSTALL OR DISASSEMBLE FIXED SURVEILLANCE RADAR SYSTEMS	6.76	2

*DENOTES LESS THAN ONE PERCENT

TABLE 29

TASKS RATED ABOVE AVERAGE IN DIFFICULTY AND PERFORMED BY AT LEAST 20 PERCENT OF 303X2 PERSONNEL

TASKS	TASK DIFFICULTY	PERCENT OF 303X2 PERSONNEL PERFORMING (N=724)
PREPARE APRs	6.70	38
ALIGN ANALOG MOVING TARGET INDICATOR (MTI) RECEIVERS	6.53	20
ISOLATE IFF/SIF RECEIVER MALFUNCTIONS	6.27	23
ISOLATE TRANSMITTER MODULATOR CONTROL CIRCUIT MALFUNCTIONS	6.24	23
ISOLATE TRANSMITTER MODULATOR MALFUNCTIONS	6.20	26
ISOLATE TRANSMITTER STALO MALFUNCTIONS	6.15	21
ISOLATE IF AMPLIFIER OR PREAMPLIFIER MALFUNCTIONS	6.14	22
PERFORM MICROMINIATURE OR HIGH RELIABILITY SOLDERING	6.12	22
ISOLATE TRANSMITTER HIGH VOLTAGE PROTECTIVE CIRCUIT MALFUNCTIONS	6.11	27
ISOLATE IFF/SIF TRANSMITTER MALFUNCTIONS	6.08	22
ALIGN IFF/SIF RECEIVERS	6.08	26
CONDUCT OJT	6.04	38
DEVELOP WORK METHODS OR PROCEDURES	6.01	21
INTERPRET PLANS, DIAGRAMS, OR SCHEMATICS	5.98	40
SUPERVISE AIRCRAFT CONTROL AND WARNING RADAR SPECIALISTS (AFSC 30352)	5.97	34
ALIGN IFF/SIF TRANSMITTERS	5.94	26
ISOLATE INDICATOR SWEEP GENERATOR MALFUNCTIONS	5.94	23
COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED MATTERS	5.90	34
ISOLATE TRANSMITTER TRIGGER AMPLIFIER MALFUNCTIONS	5.89	24
IMPLEMENT SELF-INSPECTION PROGRAMS	5.83	22
WRITE CORRESPONDENCE	5.79	27
ADJUST GROUND CLUTTER ELIMINATION CIRCUITS	5.78	24
ERECT MOBILE RADAR ANTENNAS	5.74	23
PREPARE REPLIES TO INSPECTION REPORTS	5.74	21
ISOLATE VOLTAGE REGULATOR MALFUNCTIONS	5.74	28

TABLE 30

REPRESENTATIVE TASKS RATED AVERAGE IN DIFFICULTY BY 303X2 RATERS

TASKS	TASK DIFFICULTY	PERCENT OF 303X2 PERSONNEL PERFORMING (N=724)
ALIGN COMMUNICATION CONTROL CENTRALS	5.07	*
ALIGN INTEGRATOR CALIBRATORS	5.07	*
ADJUST VIDEO AMPLIFIERS	5.06	33
PROGRAM COMPUTERS	5.06	1
REPLOT ECM DATA	5.05	*
FABRICATE SEMIRIGID CABLES	5.04	10
ISOLATE WAVEGUIDE SWITCH MALFUNCTIONS	5.04	15
ALIGN IFF/SIF ANTENNA SYSTEMS	5.04	11
REMOVE OR REPLACE WAVEGUIDE FEED HORNS	5.01	18
MEASURE ANTENNA CONTOURS	5.01	9
PERFORM RADAR TO COMPUTER MARRIAGE CHECKS	5.01	13
ADJUST TRANSMITTER AMPLIFIER MIXERS	5.00	22
CONSTRUCT COMBAT AREA HUMAN SAFETY FACILITIES	4.99	2
INSTALL OR DISASSEMBLE DEHYDRATING SYSTEMS	4.99	13
ADVISE COMMUNICATORS OF RESTRICTED BANDS	4.98	*
REMOVE OR REPLACE ANTENNA PHASE SHIFTERS	4.98	1
ALIGN RADOME PRESSURIZATION SYSTEMS	4.97	4
EVALUATE CORROSION CONTROL PROGRAMS	4.97	13
REMOVE OR REPLACE ANTENNA DRIVE MOTORS	4.97	18
PREPARE AREAS FOR SITE INSTALLATIONS	4.96	10
ALIGN INDICATOR VIDEO MIXERS	4.96	16
PERFORM BEACON DELAY CALIBRATOR CHECKS	4.95	2
ALIGN AZIMUTH BLANKERS	4.95	22
REMOVE OR REPLACE POLARIZERS	4.94	3
ESTABLISH PUBLICATION LIBRARIES	4.93	8

TABLE 31

REPRESENTATIVE TASKS RATED THE LEAST DIFFICULT BY 303X2 RATERS

TASKS	TASK DIFFICULTY	PERCENT OF 303X2 PERSONNEL PERFORMING (N=724)
PERFORM AREA BEAUTIFICATION	1.55	39
PERFORM GENERAL HOUSEKEEPING PROCEDURES	1.58	56
CLEAN OR REPLACE AIR OR MOISTURE FILTERS	1.75	47
LUBRICATE VAN OR TRAILER CHASSIS	1.76	13
INSTALL OR REMOVE PORTABLE LATRINES	1.85	5
REMOVE OR REPLACE FUSES OR FUSE HOLDERS	1.92	56
LUBRICATE MECHANICAL BEARING SURFACES	1.94	41
SCORE TESTS	2.18	8
REMOVE OR REPLACE ELECTRON TUBES	2.19	53
INSTALL OR REMOVE SHELTER OR VAN ACCESSORIES, SUCH AS WALKWAYS, LADDERS, OR STEPS	2.32	13
PERFORM GENERAL FACILITY MAINTENANCE OR REPAIRS, SUCH AS PAINTING OR REMODELING ROOMS OR REPAIRING PLUMBING FIXTURES	2.39	34
DRIVE SMALL GOVERNMENT VEHICLES, SUCH AS PICKUPS OR PASSENGER VEHICLES	2.44	39
LACE WIRING ASSEMBLIES	2.51	33
ISSUE JOB CONTROL NUMBERS	2.52	19
INSTALL OR REMOVE MOUNTING BRACKETS OR FIXTURES	2.65	25
LEVEL SHELTERS OR VANS	2.65	22
PITCH OR STRIKE TENTS	2.72	19
REMOVE OR REPLACE RESISTORS	2.79	57
INSTALL OR REMOVE GROUND ANCHORS, TIEDOWNS, OR STRAPS	2.84	22
REMOVE OR REPLACE BULB HOLDERS	2.85	34
REMOVE OR REPLACE DRIVE BELTS	2.89	12
REMOVE OR REPLACE SWITCHES	2.94	50

ANALYSIS OF CONUS VERSUS OVERSEAS GROUPS

A comparison was made between the tasks performed and the background data for the DAFSC 303X2 personnel who were assigned within the CONUS versus those who were assigned to overseas locations. Overall, the jobs performed by the two groups are very similar with respect to the tasks performed and the time spent on those tasks. However, the job of the overseas respondents seems to involve more of a mobile mission, due primarily to the fact that most of the AC&W radars at overseas locations are of a mobile type.

A number of task differences and similarities were noted between CONUS and overseas incumbents. Table 32 reveals several maintenance tasks involving equipment alignments, such as aligning antenna servo drive systems, aligning dickie fix receivers, or aligning induction regulators are performed by slightly higher percentages of DAFSC 30352 CONUS personnel. General or preventive maintenance tasks, such as removing capacitors, performing corrosion control on equipment vans, or replacing electron tubes are performed by roughly equal percentages of CONUS and overseas respondents. Finally, Table 32 reveals mobile radar type tasks, such as erecting mobile antennas, pitching tents, or installing mobilizers or transporters are performed by substantially higher percentages of overseas respondents than CONUS respondents.

Table 33 provides various background data for both CONUS and overseas respondents. A review of background data reveals overseas incumbents perform substantially more tasks (162 versus 126), while a higher percentage of CONUS respondents are in their first enlistment. Job satisfaction data appears to be somewhat better for overseas respondents, with approximately 10 percent more finding their job utilizes their talents and plan to reenlist. Finally Table 33 reveals some substantial differences in the type of equipment maintained by these two groups. The AN/FPS-6/90 and AN/GPA-127 are more likely to be maintained by CONUS incumbents, while the AN/GPA-13, AN/TPS-43E, AN/UPA-62, and AN/UPX-23 are more likely to be maintained by overseas respondents.

TABLE 32

TASKS WHICH BEST DIFFERENTIATE DAFSC 30352 CONUS AND OVERSEAS PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING: CONUS 30352 PERSONNEL (N=305)	OVERSEAS 30352 PERSONNEL (N=93)	DIFFERENCE
PERFORM RADAR TO COMPUTER MARRIAGE CHECKS	19	3	+16
ALIGN ANTENNA SERVO DRIVE SYSTEMS	22	7	+15
ADJUST CRYSTAL MIXERS	35	21	+14
ISOLATE CRYSTAL MIXER MALFUNCTIONS	25	11	+14
ALIGN INDUCTION REGULATORS	25	11	+14
ISOLATE TRANSMITTER MODULATOR MALFUNCTIONS	32	19	+13
ALIGN DICKIE FIX RECEIVERS	21	9	+12
ALIGN LINEAR RECEIVERS	26	14	+12
REMOVE OR REPLACE CATHODE-RAY TUBES	53	51	+2
PERFORM POWER SUPPLY OPERATIONAL CHECKS	54	52	+2
REMOVE OR REPLACE INDUCTION COILS	34	33	+1
REMOVE OR REPLACE ELECTRON TUBES	64	64	*
CONDUCT OJT	34	34	*
ISOLATE POWER SUPPLY MALFUNCTIONS OTHER THAN TRANSMITTER HIGH VOLTAGE POWER SUPPLIES	47	48	-1
ADJUST TRANSMITTER HIGH VOLTAGE PROTECTIVE CIRCUITS	39	41	-2
PERFORM PMIs ON MOBILIZERS OR TRANSPORTERS	10	44	-34
INSTALL OR REMOVE INTERCONNECTING CABLES	23	59	-36
LEVEL SHELTERS OR VANS	17	56	-39
PERFORM CORROSION CONTROL ON EQUIPMENT VANS OR TRAILERS	17	57	-40
INSTALL OR REMOVE MOBILIZERS OR TRANSPORTERS	13	55	-42
DRIVE HEAVY DUTY VEHICLES, SUCH AS 1½ TON TRUCKS OR 10 TON TRACTOR-TRAILER COMBINATIONS	16	59	-43
PITCH OR STRIKE TENTS	10	54	-44
ERECT MOBILE RADAR ANTENNAS	17	62	-45

* DENOTES LESS THAN ONE PERCENT

TABLE 33

BACKGROUND AND JOB SATISFACTION INFORMATION FOR DAFSC 30352
CONUS AND OVERSEAS PERSONNEL

	30352 CONUS PERSONNEL	30352 OVERSEAS PERSONNEL
AVERAGE NUMBER OF TASKS PERFORMED:	126	162
PERCENT SUPERVISING:	30%	28%
AVERAGE MONTHS TAFMS:	72	77
PERCENT IN FIRST ENLISTMENT:	47%	26%
JOB INTEREST:	56%	62%
JOB UTILIZES TALENTS AT LEAST FAIRLY WELL:	59%	70%
JOB UTILIZES TRAINING AT LEAST FAIRLY WELL:	67%	73%
REENLISTMENT INTENTIONS:	39%	51%
WORK SHIFT:		
DAY	39%	44%
ROTATING EIGHT HOUR	28%	23%
VARIABLE	12%	20%
TYPES OF RADAR EQUIPMENT MAINTAINED:		
AN/FPS-6/90 FAMILY RADARS	26%	16%
AN/GPA-13 DEFRUITER	16%	38%
AN/GPA-127 RADAR INDICATOR	38%	17%
AN/GPS-T4 TARGET SIMULATOR	13%	31%
AN/TPS-43E RADAR SET	21%	67%
AN/UPA-59A DECODER SET	14%	28%
AN/UPA-62 SERIES RADAR INDICATOR	22%	57%
AN/UPM-137 INTERROGATOR TEST SET	17%	37%
AN/UPX-23 INTERROGATOR SYSTEM	21%	59%

ANALYSIS OF WRITE-IN COMMENTS

Respondents are invited to write in any comments relative to their job in back of their job inventory booklet. In this survey, a fairly small amount of write-in comments addressed a range of career ladder irritants. Generally, these comments involve educational benefits, training deficiencies, or personnel misutilization.

Although there are a number of educational programs in the Air Force, apparently several members in this career ladder are unaware of them. A typical comment reflecting this fact would include:

"The problem with retention of airmen is the lack of any benefits given. I missed the GI bill so I won't get any schooling. Because I didn't get my schooling through the Air Force, I must leave the service to get my much needed and desired education."

A number of write-ins reflected some dissatisfaction with the training at the Technical Training Center. Some of these comments include:

"It is my observation, as NCOIC of Radar Maintenance, that if the Air Force were to place emphasis on basic electronics training and cut back on its general equipment training, my job would be easier. A 3-skill level fresh out of Keesler is useless to me. They know the general material of the STS, but they lack a solid understanding of fundamental electronics..."

"I work many hours on the AN/GSQ-120 system. In the CONUS this equipment is maintained by 302X2 personnel, overseas this equipment is maintained by 304X4 (Radio Relay) personnel. The schools are set-up for 304X4 personnel and the instruction is for people with a radio relay background..."

Five write-in comments were received which addresses the personnel utilization issue. All of these comments reflect a misutilization of 302X2 personnel, some of which include:

"The Air Force loses valuable talents by not effectively manning small radar squadrons. Too often there are too many or too few top level supervisors..."

"The job I reside in at present is very straining. I do not obtain any satisfaction ... or utilize my full potential in this job. I was on a remote radar site before and at least there I felt like I was accomplishing my best and was satisfied with my job."

"My talents and training are not being utilized in the best manner available to the Air Force. It would be beneficial to the Air Force and myself if I were reassigned to a radar squadron."

"I am working at a wing level reports branch where I use less than a tenth of what I have learned in the Air Force in the past eight years."

"Please get me out of here. I need a job!"

Although these comments point to some specific irritants in the career ladder, overall, the number of write-in comments was relatively low (roughly one percent). In other words, these comments may reflect individual differences rather than the feelings of the total career ladder.

IMPLICATIONS

The Aircraft Control and Warning Radar career ladder is fairly heterogeneous, with a wide variety of jobs performed by 303X2 personnel. However, the technical radar maintenance jobs performed by 303X2 personnel are fairly homogeneous, with a majority of these personnel falling into one major job group. However, the nontechnical jobs performed by these respondents differ considerably, ranging from job control to supervisors to instructors. Most of the personnel in the nontechnical jobs are more senior, having a higher paygrade and higher average of months TAFMS than the personnel performing technical radar maintenance jobs.

The career ladder has remained relatively stable over the last few years, and no drastic changes are foreseen in the near future. However, the introduction of several new types of AC&W radars (particularly the AN/TPS-43E) has caused some changes in the career ladder, and correspondingly some changes have been noted in the 3ABR30332 POI in order to teach the new technology (digital) in these new types of radar equipment.

A review of job satisfaction reveals several interesting trends. First, 303X2 incumbents seemed to be more satisfied with their job in 1978 than they were in 1980. Second, job satisfaction indications for first enlistment personnel are about the same as those for comparative sample personnel. Finally, job satisfaction varies across the major job groups identified in the career ladder structure, and Job Control Personnel were noted as being the most dissatisfied with their job. Air Force managers and supervisors need to be aware of these somewhat dissatisfying jobs, and try and find ways to improve them.

APPENDIX A

Job Type Descriptions

Listed below are brief descriptions of the job types identified in the AC&W Radar CAREER LADDER STRUCTURE section. Generally, the relative heterogeneity of job types within any one cluster seems to depend on the cluster itself, with some clusters being fairly homogeneous and other clusters having fairly heterogeneous job types. For additional information, the tables in Appendix A reveal various duty, background, and job satisfaction data for all of the job types identified. (For a further explanation of the job types identified, see the CAREER LADDER STRUCTURE section of this report.)

AC&W Radar Maintenance Personnel

There are six job types within this cluster, and differentiating factors among the job types are the average nunber of tasks performed and the type of radar or radar equipment maintained. Tactical Radar Repairmen spend nine percent of their job time performing radar system installation and removal functions and perform an average of 260 tasks. These incumbents are primarily responsible for maintaining the AN/TPS-43E radar set. This is a mobile AC&W radar, and differentiating tasks performed by these incumbents include isolating digital MTI receiver malfunctions, isolating digital height computer and evaluation system malfunctions, or leveling antenna pedestals. AC&W IFF/SIF Repairmen perform an average of 171 tasks and spend 30 percent of their job time performing preventive maintenance. These incumbents are responsible for maintaining the AN/MPS-11 radar set and associated IFF/SIF equipment. Tasks which best distinguish these incumbents include aligning IFF/SIF receivers, performing PMIs on IFF/SIF equipment, or aligning analog plan position indicators (PPIs). These respondents have somewhat mixed job satisfaction indicators, with only 46 percent finding their job interesting but 82 percent perceiving their training is being utilized at least fairly well. As their title indicates, AN/FPN-6/90 Height Finder Radar Maintenance Repairmen are responsible for maintaining AN/FPN-6/90 family radars. Differentiating tasks performed by these personnel seem to involve the magnetrons associated with these types of radars, such as tuning magnetron transmitters, adjusting magnetron liquid cooling systems, or isolating amplidyne malfunctions. It is interesting to note that 32 percent of these incumbents are assigned to AFCC, and only 37 percent find their job interesting. AC&W Radar Supervisors seem to be the firstline supervisors at many AN/FPS-6/90 radar locations. These incumbents spend approximately 15 percent of their job time performing supervisory duties and perform an average of 313 tasks, both of which were the highest noted for all job types. Tasks which are performed by high percentages of these incumbents include planning work assignments, supervising AC&W Radar Specialists (AFSC 30352), and replacing magnetron transmitters. Overall, these incumbents appear to be fairly satisfied with their job, with 71 percent finding their job interesting and 54 percent planning to reenlist. Klystron Repairmen tend to concentrate on maintaining AN/GPA-127 radar indicators, but 38 percent also report maintaining AN/FPS-6/90 family radars. Tasks involving klystrons seem to best differentiate these incumbents, and tuning transmitter klystron power amplifiers, isolating klystron liquid cooling system malfunctions, and adjusting klystron power amplifier focus coils. Seventy-one percent of these incumbents are in their first enlistment, and overall, these incumbents appear

satisfied with their job. However, reenlistment intentions are poor for these incumbents, with only 29 percent planning to reenlist. Finally, AN/FPS-26A Height Finder Radar Maintenance Personnel are responsible for maintaining the AN/FPS-26A radar set. Tasks involving several types of oscillators best differentiate these personnel, and include aligning transmitter STALOs, aligning transmitter coherent crystal oscillators, or replacing receiver coherent oscillators. This job type is very similar to Klystron Repairmen, in that both job types are primarily made up of first enlistment personnel and reenlistment intentions are fairly poor. (For more information about these job types see Tables I, II, and III.)

Junior AC&W Radar Maintenance Personnel

The three job types in this cluster are relatively homogeneous, with all of these personnel spending approximately 40 percent of their job time performing general and preventive maintenance tasks. Fixed Search Radar Personnel perform the lowest average number of tasks (49) and only average 37 months TAFMS. These incumbents perform many of the same differentiating tasks as Klystrom Repairmen identified in the previous cluster, some of which include adjusting klystron liquid cooling systems, tuning transmitter klystron power amplifiers, and performing power supply operational checks. Mobile Search Radar Personnel perform an average of 58 tasks and average 48 months TAFMS. These incumbents perform a mobile mission, and mobility tasks, such as installing mobilizers or transporters, leveling shelters or vans, or erecting mobile radar antennas are performed by substantially higher percentages of these personnel. These incumbents have relatively low job satisfaction indicators, with only 40 percent perceiving their job utilizes their talents at least fairly well and only 20 percent planning to reenlist. Finally, Range Height Indicator Operators perform the highest average number of tasks (79) and are the most senior (averaging 56 months TAFMS). The range and height indicator tasks these incumbents perform best differentiate these incumbents, some of which include operating range height indicators, adjusting height indicator (RHI) time sharing assemblies, and aligning RHIs. Job satisfaction indicators for these incumbents are mixed, with only 41 percent finding their job interesting, but 40 percent plan to reenlist. (For more information about these job types see Tables IV, V, and VI.)

Job Control Personnel

There are three job types within this cluster, and personnel from all career ladders sampled (303X1, 303X2, and 303X3) can be found in each of the job types. These job types are fairly homogeneous, with all three job types spending similar amounts of time performing the same types of duties. Differentiating factors for these job types include the amount of time spent on supervisory and administrative duties, and the average number of tasks performed. Firstline Job Controllers seem to be the firstline supervisors in a job control shop. These incumbents supervise an average of two personnel, spend 37 percent of their job time on supervisory duties, and perform an average of 28 tasks. Typical tasks for these incumbents include determining work priorities, issuing job control numbers, or preparing APRs. Job Controllers spend similar amounts of time on both supervisory and administrative duties as the above job type, but perform a substantially lower average number of tasks (18). Typical tasks performed by these incumbents

include establishing maintenance schedules, preparing briefings, and maintaining status boards, graphs, or charts. Junior Job Controllers are differentiated by the low average number of tasks they perform (eight) and by the large amount of time spent (60 percent) performing administrative and supply functions. These incumbents perform a very narrow and limited job, and typical tasks include preparing job/status document forms and issuing job control numbers. Unsurprisingly, these incumbents have extremely poor job satisfaction indicators, with only 37 percent finding their job interesting and 16 percent believing their training is being utilized at least fairly well. (For more information about these job types see Tables VII, VIII, and IX.)

Radar Maintenance Supervisors

There are five fairly homogeneous job types in this cluster. The differentiating factors for these job types seem to be the average number of tasks performed and the amount of time spent performing operations or supervisory duties. Operations/Analysis NCOICs are all 303X3 personnel, and 92 percent are assigned to SAC. These respondents appear to be the firstline operations supervisors at many of the Combat Evaluation Group (CEVG) detachments. These incumbents spend 31 percent of their time performing operations functions, and typical tasks performed include preparing APRs, directing scoring of mission runs, and conducting daily crew briefings. NCOICs, Radar Maintenance perform the highest average number of tasks (106), and 34 percent are assigned to AFCC. These incumbents appear to be the middle level supervisors at various radar maintenance workcenters, and typical tasks include directing maintenance of facilities or work areas, determining OJT training requirements, or planning work assignments. NCOICs, Maintenance Control appear to be the middle level supervisors for the Job Control Personnel identified earlier. Representative tasks performed by these incumbents include maintaining status boards, graphs, or charts, supervising military personnel with AFSs other than 303X1, 303X2, or 303X3, or preparing APRs. Overall, these incumbents have the lowest job satisfaction indicators, with only 59 percent finding their job interesting and 53 percent perceiving their talents are being utilized at least fairly well. Radar Maintenance Superintendents spend almost 90 percent of their job time on supervisory duties. Seventy-one percent of these respondents hold DAFSC 30399, and these incumbents appear to be the upper level enlisted managers of the 303X1, 303X2, and 303X3 career ladders. Representative tasks performed by high percentages of these personnel include interpreting policies, directives, or procedures for subordinates, evaluating individuals for recognition, or indorsing APRs. Finally, Training Supervisors are differentiated by the large percentage of time spent (32 percent) performing training tasks. Many of these respondents are responsible for the OJT programs at various workcenters, and differentiating tasks include conducting OJT, selecting individuals for specialized training, or implementing training programs other than OJT. Overall, these personnel are satisfied with their job, with 84 percent finding their job interesting and 69 percent planning to reenlist. (For more information about these job types see Tables X, XI, and XII.)

Quality Control Personnel

There are three job types identified within this cluster, all three of which are fairly similar to each other. Some differences can be found between these job types, and include the average number of tasks performed and the level at which these respondents conduct quality control programs. NCOICs, Quality Control seem to be the typical quality control personnel found at the workcenters. These incumbents spend 44 percent of their job time inspecting and evaluating and 21 percent of their time performing administrative functions. These incumbents perform the highest average number of tasks (73), some of which include performing equipment inspections, performing personnel proficiency evaluations, and preparing inspection reports. MAJCOM Quality Control Personnel are primarily working at various MAJCOM headquarters, and seem to be responsible for their respective headquarters quality control programs. Typical tasks performed by these more senior incumbents include reviewing correspondence or reports, analyzing trends in system malfunctions, and evaluating maintenance procedures. Somewhat unexpectedly, these incumbents have relatively low job satisfaction, with only 45 percent finding their job interesting and 35 percent planning to reenlist. Quality Control Inspectors appear to be personnel who recently assumed a quality control type job. Consequently, their experience is temporarily limited, and these incumbents perform a very low average number of tasks (28). Most of the tasks performed by these personnel involve inspecting and evaluating, such as performing activity inspections, evaluating compliance with performance standards, and performing deficiency analysis. (For more information about these job types see Tables XIII, XIV, and XV.)

TABLE I

RELATIVE PERCENT TIME SPENT ON DUTIES BY JOB TYPES IN THE AC&W RADAR MAINTENANCE PERSONNEL CLUSTER

DUTIES	TACTICAL RADAR REPAIRMEN (GRP357, N=97)	AC&W IFF/SIF REPAIRMEN (GRP566, N=11)	AN/FPN-6/90 HEIGHT FINDER RADAR MAINTENANCE REPAIRMEN (GRP632, N=22)	AC&W RADAR SUPERVISORS (GRP966, N=28)	KLYSTRON REPAIRMEN (GRP995, N=34)	AN/FPS-26A HEIGHT FINDER RADAR MAINTENANCE REPAIRMEN (GRP925, N=26)
ORGANIZING AND PLANNING	1	*	1	3	*	1
DIRECTING AND IMPLEMENTING	1	2	2	3	*	2
INSPECTING AND EVALUATING	2	2	2	5	1	2
TRAINING	1	2	2	3	*	*
PERFORMING ADMINISTRATIVE AND SUPPLY FUNCTIONS	6	5	5	7	3	5
PERFORMING OPERATIONS FUNCTIONS	6	5	6	4	6	7
PERFORMING SITE SUPPORT FUNCTIONS	3	2	*	2	1	1
PERFORMING RADAR SYSTEM INSTALLATION AND REMOVAL FUNCTIONS	9	*	*	2	*	*
PERFORMING GENERAL AND PREVENTIVE MAINTENANCE	22	30	27	19	23	25
MAINTAINING POWER AND DISTRIBUTION EQUIPMENT	3	4	4	4	5	5
MAINTAINING TIMING SYSTEMS	4	5	1	2	1	1
MAINTAINING TRANSMITTER SYSTEMS	10	3	21	16	23	20
MAINTAINING ANTENNA SYSTEMS	5	3	9	6	3	11
MAINTAINING RECEIVER SYSTEMS	10	19	12	15	19	10
MAINTAINING DISPLAY EQUIPMENT	4	9	7	7	6	7
MAINTAINING REMOTE EQUIPMENT	*	*	*	*	*	*
MAINTAINING ANCILLARY EQUIPMENT	2	2	*	1	*	*
MAINTAINING IDENTIFICATION FRIEND OR FOE (IFF) AND SELECTIVE IDENTIFICATION FEATURE (SIF) EQUIPMENT	10	8	*	2	4	*
MAINTAINING RANGE AND ANGLE TRACKING SYSTEMS	*	*	*	*	*	*
MAINTAINING COMPUTER SYSTEMS	*	*	*	*	*	*

*DENOTES LESS THAN ONE PERCENT

TABLE II

BACKGROUND INFORMATION FOR JOB TYPES IN THE AC&W RADAR MAINTENANCE PERSONNEL CLUSTER

	TACTICAL RADAR REPAIRMEN	AC&W IFF/SIF REPAIRMEN	AN/FPN-6/90 HEIGHT FINDER RADAR MAINTENANCE REPAIRMEN	AC&W RADAR SUPERVISORS	KLYSTRON REPAIRMEN	AN/FPS-26A HEIGHT FINDER RADAR MAINTENANCE REPAIRMEN
AVERAGE NUMBER OF TASKS PERFORMED:	260	171	141	313	206	232
JOB DIFFICULTY INDEX:	17.0	14.7	13.3	19.3	16.4	16.4
AVERAGE PAYGRADE:	E-4, E-5	E-4, E-5	E-4, E-5	E-5	E-4	E-4, E-5
PERCENT LOCATED IN CONUS:	56%	73%	86%	68%	97%	100%
AVERAGE NUMBER OF PERSONS SUPERVISED:	1	1	1	1	1	1
DAFSC:						
30332	3%	-	5%	-	12%	11%
30352	74%	82%	82%	46%	76%	65%
30372	22%	18%	13%	54%	12%	24%
30399	-	-	-	-	-	-
303X1	1%	-	-	-	-	-
303X3	-	-	-	-	-	-
AVERAGE MONTHS TAFMS:	87	83	73	136	63	82
PERCENT IN FIRST ENLISTMENT:	21%	36%	36%	7%	71%	58%
MAJOR COMMAND:						
AFCC	1%	-	32%	18%	-	4%
TAC	58%	72%	68%	68%	97%	92%
USAFE	39%	-	-	-	-	4%
OTHER	2%	28%	-	14%	3%	-
EQUIPMENT MAINTAINED:						
AN/FPS-6/90 FAMILY RADARS	9%	34%	95%	61%	38%	67%
AN/FPS-26A RADAR SETS	9%	34%	4%	4%	12%	62%
AN/TPS-43E RADAR SETS	89%	36%	9%	4%	12%	8%
AN/MPS-11 RADAR SETS	9%	54%	4%	11%	9%	4%
AN/GPA-127 RADAR INDICATORS	15%	73%	23%	57%	94%	12%
AN/UPX-23 INTERROGATOR SYSTEMS	91%	27%	5%	-	12%	8%

TABLE III

JOB SATISFACTION DATA FOR JOB TYPES IN THE AC&W RADAR MAINTENANCE PERSONNEL CLUSTER
(PERCENT MEMBERS RESPONDING)

	TACTICAL RADAR REPAIRMEN	AC&W IFF/SIF REPAIRMEN	AN/FPN-6/90 HEIGHT FINDER RADAR MAINTENANCE REPAIRMEN	AC&W RADAR SUPERVISORS	KLYSTRON REPAIRMEN	AN/FPS-26A HEIGHT FINDER RADAR MAINTENANCE REPAIRMEN
I FIND MY JOB:						
NO RESPONSE	1	-	-	-	-	-
DULL	17	18	27	4	12	27
SO-SO	16	36	36	25	9	23
INTERESTING	66	46	37	71	79	50
MY JOB UTILIZES MY TALENTS:						
NO RESPONSE	-	-	-	-	3	-
NOT AT ALL TO VERY LITTLE	23	36	36	21	21	35
FAIRLY WELL OR BETTER	77	64	64	79	76	65
MY JOB UTILIZES MY TRAINING:						
NO RESPONSE	-	-	-	-	-	-
NOT AT ALL TO VERY LITTLE	19	18	23	18	6	23
FAIRLY WELL OR BETTER	81	82	77	82	94	77
I PLAN TO REENLIST:						
NO RESPONSE	1	-	-	-	3	-
NO, PLANNING TO RETIRE	3	18	-	11	3	8
NO OR PROBABLY NO	46	36	59	35	65	62
YES OR PROBABLY YES	50	46	41	54	29	30

TABLE IV

RELATIVE PERCENT TIME SPENT ON DUTIES BY JOB TYPES IN THE JUNIOR AC&W RADAR MAINTENANCE PERSONNEL

DUTIES	FIXED SEARCH RADAR PERSONNEL (GRP308, N=18)	MOBILE SEARCH RADAR PERSONNEL (GRP339, N=10)	RANGE HEIGHT INDICATOR OPERATORS (GRP286, N=22)
ORGANZING AND PLANNING	*	*	*
DIRECTING AND IMPLEMENTING	*	1	*
INSPECTING AND EVALUATING	2	2	2
TRAINING	*	1	*
PERFORMING ADMINISTRATIVE AND SUPPLY FUNCTIONS	7	9	7
PERFORMING OPERATIONS FUNCTIONS	6	3	8
PERFORMING SITE SUPPORT FUNCTIONS	5	4	1
PERFORMING RADAR SYSTEM INSTALLATION AND REMOVAL FUNCTIONS	2	5	*
PERFORMING GENERAL AND PREVENTIVE MAINTENANCE	47	51	38
MAINTAINING POWER AND DISTRIBUTION EQUIPMENT	3	4	4
MAINTAINING TIMING SYSTEMS	*	*	*
MAINTAINING TRANSMITTER SYSTEMS	13	6	15
MAINTAINING ANTENNA SYSTEMS	3	4	8
MAINTAINING RECEIVER SYSTEMS	4	4	5
MAINTAINING DISPLAY EQUIPMENT	3	2	6
MAINTAINING REMOTE EQUIPMENT	*	*	*
MAINTAINING ANCILLARY EQUIPMENT	*	*	*
MAINTAINING IDENTIFICATION FRIEND OR FOE (IFF) AND SELECTIVE IDENTIFICATION FEATURE (SIF) EQUIPMENT	2	4	*
MAINTAINING RANGE AND ANGLE TRACKING SYSTEMS	*	*	*
MAINTAINING COMPUTER SYSTEMS	*	*	*

*DENOTES LESS THAN ONE PERCENT

TABLE V

BACKGROUND INFORMATION FOR JOB TYPES IN THE
JUNIOR AC&W RADAR MAINTENANCE PERSONNEL CLUSTER

	FIXED SEARCH RADAR PERSONNEL	MOBILE SEARCH RADAR PERSONNEL	RANGE HEIGHT INDICATOR OPERATORS
AVERAGE NUMBER OF TASKS PERFORMED:	49	58	79
JOB DIFFICULTY INDEX:	7.4	6.5	9.0
AVERAGE PAYGRADE:	E-3, E-4	E-3, E-4	E-3, E-4
PERCENT LOCATED IN CONUS:			
DAFSC:			
30332	28%	40%	18%
30352	66%	40%	68%
30372	-	10%	-
30399	-	-	-
303X1	6%	10%	5%
303X3	-	-	9%
AVERAGE MONTHS TAFMS:	37	48	56
PERCENT IN FIRST ENLISTMENT:	83%	80%	82%
MAJOR COMMAND:			
AFCC	6%	30%	9%
TAC	94%	70%	82%
OTHER	-	-	9%
EQUIPMENT MAINTAINED:			
AN/GPA-127 RADAR INDICATORS	56%	30%	23%
AN/GPS-72 RADAR SIGNAL SIMULATOR SETS	-	40%	18%
AN/UPM-137 INTERROGATOR TEST SETS	17%	50%	18%
AN/UPX-14 INTERROGATOR SETS	50%	30%	18%
OA-270 RADAR INDICATORS	11%	-	36%
OA-929 RADAR INDICATORS	5%	-	36%

TABLE VI

JOB SATISFACTION DATA FOR JOB TYPES IN THE JUNIOR AC&W
RADAR MAINTENANCE PERSONNEL CLUSTER
(PERCENT MEMBERS RESPONDING)

	FIXED SEARCH RADAR PERSONNEL	MOBILE SEARCH RADAR PERSONNEL	RANGE HEIGHT INDICATOR OPERATORS
I FIND MY JOB:			
NO RESPONSE	-	-	-
DULL	22	30	41
SO-SO	28	20	18
INTERESTING	50	50	41
MY JOB UTILIZES MY TALENTS:			
NO RESPONSE	-	-	-
NOT AT ALL TO VERY LITTLE	44	60	55
FAIRLY WELL OR BETTER	56	40	45
MY JOB UTILIZES MY TRAINING:			
NO RESPONSE	-	-	-
NOT AT ALL TO VERY LITTLE	17	50	23
FAIRLY WELL OR BETTER	83	50	77
I PLAN TO REENLIST:			
NO RESPONSE	-	-	-
NO, PLANNING TO RETIRE	-	-	5
NO OR PROBABLY NO	71	80	55
YES OR PROBABLY YES	29	20	40

TABLE VII

RELATIVE PERCENT TIME SPENT ON DUTIES BY JOB TYPES IN THE JOB CONTROL PERSONNEL CLUSTER

DUTIES	FIRSTLINE JOB CONTROLLERS (GRP579, N=13)	JOB CONTROLLERS (GRP454, N=14)	JUNIOR JOB CONTROLLERS (GRP348, N=32)
ORGANIZING AND PLANNING	8	19	7
DIRECTING AND IMPLEMENTING	13	16	2
INSPECTING AND EVALUATING	8	4	2
TRAINING	8	*	1
PERFORMING ADMINISTRATIVE AND SUPPLY FUNCTIONS	38	35	60
PERFORMING OPERATIONS FUNCTIONS	7	*	5
PERFORMING SITE SUPPORT FUNCTIONS	13	22	18
PERFORMING RADAR SYSTEM INSTALLATION AND REMOVAL FUNCTIONS	*	*	*
PERFORMING GENERAL AND PREVENTIVE MAINTENANCE	3	1	*
MAINTAINING POWER AND DISTRIBUTION EQUIPMENT	*	*	*
MAINTAINING TIMING SYSTEMS	*	*	*
MAINTAINING TRANSMITTER SYSTEMS	*	*	*
MAINTAINING ANTENNA SYSTEMS	*	*	*
MAINTAINING RECEIVER SYSTEMS	*	*	*
MAINTAINING DISPLAY EQUIPMENT	*	*	*
MAINTAINING REMOTE EQUIPMENT	*	*	*
MAINTAINING ANCILLARY EQUIPMENT	*	*	*
MAINTAINING IDENTIFICATION FRIEND OR FOE (IFF) AND SELECTIVE IDENTIFICATION FEATURE (SIF) EQUIPMENT	*	*	*
MAINTAINING RANGE AND ANGLE TRACKING SYSTEMS	*	*	*
MAINTAINING COMPUTER SYSTEMS	*	*	*

*DENOTES LESS THAN ONE PERCENT

TABLE VIII

BACKGROUND INFORMATION FOR JOB TYPES IN THE JOB CONTROL PERSONNEL CLUSTER

	FIRSTLINE JOB CONTROLLERS	JOB CONTROLLERS	JUNIOR JOB CONTROLLERS
AVERAGE NUMBER OF TASKS PERFORMED:	28	18	8
JOB DIFFICULTY INDEX:	7.1	5.3	4.1
AVERAGE PAYGRADE:	E-5	E-4	E-4
PERCENT LOCATED IN CONUS:	62%	79%	81%
AVERAGE NUMBER OF PERSONS SUPERVISED:	2	-	-
DAFSC:			
30331	-	-	-
30351	8%	28%	9%
30371	8%	-	6%
30332	-	-	-
30352	46%	14%	53%
30372	38%	21%	12%
30333	-	7%	-
30353	-	30%	20%
30373	-	-	-
30399	-	-	-
MAJOR COMMAND:			
AFCC	27%	46%	22%
ATC	-	-	-
SAC	-	-	-
TAC	57%	54%	72%
USAFE	14%	-	-
PACAF	-	-	3%
AFSC	-	-	-
AAC	-	-	-
OTHER	2%	-	3%

TABLE IX

JOB SATISFACTION DATA FOR JOB TYPES IN THE JOB CONTROL PERSONNEL CLUSTER (PERCENT MEMBERS RESPONDING)

	FIRSTLINE JOB CONTROLLERS	JOB CONTROLLERS	JUNIOR JOB CONTROLLERS
I FIND MY JOB:			
NO RESPONSE	-	-	-
DULL	15	14	38
SO-SO	31	21	25
INTERESTING	54	65	37
MY JOB UTILIZES MY TALENTS:			
NO RESPONSE	-	-	-
NOT AT ALL TO VERY LITTLE	39	50	69
FAIRLY WELL OR BETTER	61	50	31
MY JOB UTILIZES MY TRAINING:			
NO RESPONSE	-	-	-
NOT AT ALL TO VERY LITTLE	62	71	84
FAIRLY WELL OR BETTER	38	19	16
I PLAN TO REENLIST:			
NO RESPONSE	-	-	-
NO, PLANNING TO RETIRE	16	14	6
NO OR PROBABLY NO	15	57	50
YES OR PROBABLY YES	69	29	44

TABLE X

RELATIVE PERCENT TIME SPENT ON DUTIES BY JOB TYPES IN THE RADAR MAINTENANCE SUPERVISORS CLUSTER

DUTIES	OPERATIONS/ ANALYSIS NCOICs (GRP270, N=13)	NCOICs, RADAR MAINTENANCE (GRP 521, N=90)	NCOICs, MAINTENANCE CONTROL (GRP737, N=17)	RADAR MAINTENANCE SUPERINTENDENTS (GRP723, N=28)	TRAINING SUPERVISORS (GRP487, N=13)
ORGANIZING AND PLANNING	10	15	17	20	18
DIRECTING AND IMPLEMENTING	18	19	26	30	20
INSPECTING AND EVALUATING	13	24	21	34	19
TRAINING	13	10	12	5	32
PERFORMING ADMINISTRATIVE AND SUPPLY FUNCTIONS	6	22	18	*	8
PERFORMING OPERATIONS FUNCTIONS	31	1	*	3	1
PERFORMING SITE SUPPORT FUNCTIONS	3	3	4	*	1
PERFORMING RADAR SYSTEM INSTALLATION AND REMOVAL FUNCTIONS	2	2	*	*	*
PERFORMING GENERAL AND PREVENTIVE MAINTENANCE	*	*	*	*	*
MAINTAINING POWER AND DISTRIBUTION EQUIPMENT	*	*	*	*	*
MAINTAINING TIMING SYSTEMS	*	*	*	*	*
MAINTAINING TRANSMITTER SYSTEMS	*	*	*	*	*
MAINTAINING ANTENNA SYSTEMS	*	*	*	*	*
MAINTAINING RECEIVER SYSTEMS	*	*	*	*	*
MAINTAINING DISPLAY EQUIPMENT	*	*	*	*	*
MAINTAINING REMOTE EQUIPMENT	*	*	*	*	*
MAINTAINING ANCILLARY EQUIPMENT	*	*	*	*	*
MAINTAINING IDENTIFICATION FRIEND OR FOE (IFF) AND SELECTIVE IDENTIFICATION FEATURE (SIF) EQUIPMENT	*	*	*	*	*
MAINTAINING RANGE AND ANGLE TRACKING SYSTEMS	*	*	*	*	*
MAINTAINING COMPUTER SYSTEMS	*	*	*	*	*

*DENOTES LESS THAN ONE PERCENT

TABLE XI

BACKGROUND INFORMATION FOR JOB TYPES IN THE RADAR MAINTENANCE SUPERVISORS CLUSTER

	OPERATIONS/ ANALYSIS NCOICs	NCOICs, RADAR MAINTENANCE	NCOICs, MAINTENANCE CONTROL	RADAR MAINTENANCE SUPERINTENDENTS	TRAINING SUPERVISORS
AVERAGE NUMBER OF TASKS PERFORMED:	70	106	55	53	57
JOB DIFFICULTY INDEX:	9.9	12.8	10.7	11.7	11.9
AVERAGE PAYGRADE:	E-5, E-6	E-6, E-7	E-6, E-7	E-7, E-8	E-6
PERCENT LOCATED IN CONUS:	69%	81%	82%	82%	92%
AVERAGE NUMBER OF PERSONS SUPERVISED:	4	5	4	4	6
DAFSC:					
30331	-	-	-	-	-
30351	-	6%	6%	-	8%
30371	-	17%	6%	-	23%
30332	-	1%	-	-	-
30352	-	-	-	-	15%
30372	-	23%	53%	8%	8%
30333	-	-	-	-	-
30353	38%	4%	6%	-	8%
30373	62%	24%	11%	21%	31%
30399	-	25%	18%	71%	7%
MAJOR COMMAND:					
AFCC	-	34%	29%	18%	23%
ATC	-	-	-	-	38%
SAC	92%	19%	6%	25%	15%
TAC	8%	38%	59%	43%	24%
USAFE	-	6%	6%	14%	-
PACAF	-	3%	-	-	-
AFSC	-	-	-	-	-
AAC	-	-	-	-	-
OTHER	-	-	-	-	-

TABLE XII

JOB SATISFACTION DATA FOR JOB TYPES IN THE RADAR MAINTENANCE SUPERVISORS CLUSTER (PERCENT MEMBERS RESPONDING)

	OPERATIONS/ ANALYSIS NCOICs	NCOICs, RADAR MAINTENANCE	NCOICs, MAINTENANCE CONTROL	RADAR MAINTENANCE SUPERINTENDENTS	TRAINING SUPERVISORS
I FIND MY JOB:					
NO RESPONSE	-	-	-	4	-
DULL	8	13	35	18	8
SO-SO	8	18	6	7	8
INTERESTING	84	69	59	71	84
MY JOB UTILIZES MY TALENTS:					
NO RESPONSE	-	-	-	4	-
NOT AT ALL TO VERY LITTLE	15	27	47	25	8
FAIRLY WELL OR BETTER	85	73	53	71	92
MY JOB UTILIZES MY TRAINING:					
NO RESPONSE	-	-	-	4	-
NOT AT ALL TO VERY LITTLE	39	24	47	29	23
FAIRLY WELL OR BETTER	61	76	53	67	77
I PLAN TO REENLIST:					
NO RESPONSE	-	3	-	-	-
NO, PLANNING TO RETIRE	-	34	47	43	15
NO OR PROBABLY NO	23	11	12	14	16
YES OR PROBABLY YES	77	52	41	43	69

TABLE XIII

RELATIVE PERCENT TIME SPENT ON DUTIES BY JOB TYPES IN THE QUALITY CONTROL PERSONNEL CLUSTER

DUTIES	NCOICs, QUALITY CONTROL (GRP768, N=62)	MAJCOM QC PERSONNEL (GRP814, N=20)	QC INSPECTORS (GRP75, N=27)
ORGANIZING AND PLANNING	11	17	5
DIRECTING AND IMPLEMENTING	11	12	6
INSPECTING AND EVALUATING	44	53	60
TRAINING	6	3	2
PERFORMING ADMINISTRATIVE AND SUPPLY FUNCTIONS	21	8	22
PERFORMING OPERATIONS FUNCTIONS	1	*	*
PERFORMING SITE SUPPORT FUNCTIONS	3	2	4
PERFORMING RADAR SYSTEM INSTALLATION AND REMOVAL FUNCTIONS	*	*	*
PERFORMING GENERAL AND PREVENTIVE MAINTENANCE	*	*	*
MAINTAINING POWER AND DISTRIBUTION EQUIPMENT	*	*	*
MAINTAINING TIMING SYSTEMS	*	*	*
MAINTAINING TRANSMITTER SYSTEMS	*	*	*
MAINTAINING ANTENNA SYSTEMS	*	*	*
MAINTAINING RECEIVER SYSTEMS	*	*	*
MAINTAINING DISPLAY EQUIPMENT	*	*	*
MAINTAINING REMOTE EQUIPMENT	*	*	*
MAINTAINING ANCILLARY EQUIPMENT	*	*	*
MAINTAINING IDENTIFICATION FRIEND OR FOE (IFF) AND SELECTIVE IDENTIFICATION FEATURE (SIF) EQUIPMENT	*	*	*
MAINTAINING RANGE AND ANGLE TRACKING SYSTEMS	*	*	*
MAINTAINING COMPUTER SYSTEMS	*	*	*

*DENOTES LESS THAN ONE PERCENT

TABLE XIV

BACKGROUND INFORMATION FOR JOB TYPES IN THE QUALITY CONTROL PERSONNEL CLUSTER

	NCOICs, QUALITY CONTROL	MAJCOM QC PERSONNEL	QC INSPECTORS
AVERAGE NUMBER OF TASKS PERFORMED:	73	50	28
JOB DIFFICULTY INDEX:	12.2	12.4	10.5
AVERAGE PAYGRADE:	E-6	E-7	E-6
PERCENT LOCATED IN CONUS:	71%	60%	89%
AVERAGE NUMBER OF PERSONS SUPERVISED:	1	1	-
DAFSC:			
30331	-	-	-
30351	3%	-	-
30371	18%	35%	19%
30332	-	-	-
30352	5%	-	11%
30372	42%	25%	33%
30333	-	-	-
30353	3%	-	7%
30373	18%	10%	30%
30399	11%	30%	-
MAJOR COMMAND:			
AFCC	24%	45%	19%
ATC	-	-	-
SAC	13%	-	21%
TAC	46%	20%	56%
USAFE	15%	10%	4%
PACAF	2%	-	-
AFSC	-	15%	-
AAC	-	5%	-
OTHER	-	5%	-

TABLE XV

JOB SATISFACTION DATA FOR JOB TYPES IN THE QUALITY CONTROL PERSONNEL CLUSTER (PERCENT MEMBERS RESPONDING)

	NCOICs, QUALITY CONTROL	MAJCOM QC PERSONNEL	QC INSPECTORS
I FIND MY JOB:			
NO RESPONSE	-	5	-
DULL	11	30	26
SO-SO	19	20	15
INTERESTING	70	45	59
MY JOB UTILIZES MY TALENTS:			
NO RESPONSE	-	-	-
NOT AT ALL TO VERY LITTLE	10	40	44
FAIRLY WELL OR BETTER	90	60	56
MY JOB UTILIZES MY TRAINING:			
NO RESPONSE	-	10	-
NOT AT ALL TO VERY LITTLE	13	30	52
FAIRLY WELL OR BETTER	87	60	48
I PLAN TO REENLIST:			
NO RESPONSE	-	-	-
NO, PLANNING TO RETIRE	37	45	44
NO OR PROBABLY NO	15	20	8
YES OR PROBABLY YES	48	35	48

APPENDIX B

TABLE I

REPRESENTATIVE TASKS PERFORMED BY AC&W RADAR MAINTENANCE PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=293)
REMOVE OR REPLACE RESISTORS	98
REMOVE OR REPLACE FUSES OR FUSE HOLDERS	95
PERFORM PMIs ON TRANSMITTER EQUIPMENT	95
REMOVE OR REPLACE RELAYS	95
PERFORM PMIs ON ANTENNA EQUIPMENT	94
REMOVE OR REPLACE SEMICONDUCTOR DEVICES	91
PERFORM PMIs ON RECEIVER EQUIPMENT	91
PERFORM SOLDERING ON CIRCUIT BOARDS	88
LUBRICATE ANTENNA DRIVE SYSTEMS	87
PERFORM CORROSION CONTROL ON ANTENNA PEDESTALS OR TOWERS	85
CLEAN OR REPLACE AIR OR MOISTURE FILTERS	84
PERFORM CORROSION CONTROL ON EQUIPMENT CABINETS OR RACKS	84
ISOLATE POWER SUPPLY MALFUNCTIONS OTHER THAN TRANSMITTER HIGH VOLTAGE POWER SUPPLIES	78
CHECK TRANSMITTER PULSE TRANSFORMER OIL	78
ADJUST VOLTAGE REGULATORS	77
ADJUST WAVEGUIDE PRESSURIZER/DEHYDRATOR SYSTEMS	77
PERFORM POWER SUPPLY OPERATIONAL CHECKS	77
LUBRICATE MECHANICAL BEARING SURFACES	76
REMOVE OR REPLACE RHEOSTATS	75
PERFORM PMIs ON DISPLAY EQUIPMENT	75
PREPARE MAINTENANCE DATA COLLECTION RECORD FORMS (AFTO FORM 349)	73
PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON ANCILLARY EQUIPMENT	72
ISOLATE WAVEGUIDE PRESSURIZER/DEHYDRATOR SYSTEM MALFUNCTIONS	71
INTERPRET PLANS, DIAGRAMS, OR SCHEMATICS	71
CONSTRUCT TEST CABLES OR TEST PLUGS	70
REMOVE OR REPLACE ELECTRICAL MOTORS OR GENERATORS	69
PERFORM OPERATIONAL CHECKS OF TRANSMITTERS	67
REMOVE OR REPLACE WAVEGUIDE SECTIONS	67
PREPARE SUPPLY ISSUE/TURN-IN REQUESTS FORMS (AF FORM 2005)	67
PERFORM PMIs ON IFF/SIF EQUIPMENT	67
BLEED WAVEGUIDE PRESSURIZER/DEHYDRATOR SYSTEMS	67

TABLE II

REPRESENTATIVE TASKS PERFORMED BY JUNIOR AC&W RADAR MAINTENANCE PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=50)
REMOVE OR REPLACE FUSES OR FUSE HOLDERS	94
REMOVE OR REPLACE ELECTRON TUBES	92
PERFORM PMIs ON TRANSMITTER EQUIPMENT	90
PERFORM PMIs ON RECEIVER EQUIPMENT	78
LUBRICATE ANTENNA DRIVE SYSTEMS	76
PERFORM PMIs ON ANTENNA EQUIPMENT	68
CLEAN OR REPLACE AIR OR MOISTURE FILTERS	64
REMOVE OR REPLACE CAPACITORS	62
PREPARE MAINTENANCE DATA COLLECTION RECORD FORMS (AFTO FORM 349)	60
PERFORM POWER SUPPLY OPERATIONAL CHECKS	56
PERFORM CORROSION CONTROL ON EQUIPMENT CABINETS OR RACKS	56
PERFORM PMIs ON DISPLAY EQUIPMENT	56
PERFORM AREA BEAUTIFICATION	54
PERFORM CORROSION CONTROL ON ANTENNA PEDESTALS OR TOWERS	54
ADJUST WAVEGUIDE PRESSURIZER/DEHYDRATOR SYSTEMS	54
PERFORM SOLDERING ON CIRCUIT BOARDS	52
LUBRICATE MECHANICAL BEARING SURFACES	52
PREPARE REPARABLE ITEM PROCESSING TAG FORMS (AFTO FORM 350)	50
REMOVE OR REPLACE TRANSFORMERS	50
ALIGN RHIs	48
ADJUST TRANSMITTER HIGH VOLTAGE POWER SUPPLIES	48
INSTALL OR REMOVE CRIMPED WIRING TERMINALS	48
CONSTRUCT TEST CABLES OR TEST PLUGS	44
ADJUST AZIMUTH BLANKERS	42
CHECK TRANSMITTER PULSE TRANSFORMER OIL	40
REMOVE OR REPLACE MOTOR OR GENERATOR BRUSHES	40
PERFORM OPERATIONAL CHECKS OF TRANSMITTERS	38
PERFORM GENERAL FACILITY MAINTENANCE OR REPAIRS, SUCH AS PAINTING OR REMODELING ROOMS OR REPAIRING PLUMBING FIXTURES	38
BLEED WAVEGUIDE PRESSURIZER/DEHYDRATOR SYSTEMS	36
REMOVE OR REPLACE GEARS OR GEAR TRAIN ASSEMBLIES	34
INTERPRET PLANS, DIAGRAMS, OR SCHEMATICS	32
PERFORM PMIs ON IFF/SIF EQUIPMENT	32

TABLE III

REPRESENTATIVE TASKS PERFORMED BY ANCILLARY MAINTENANCE PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=10)
REMOVE OR REPLACE FUSES OR FUSE HOLDERS	100
PERFORM SOLDERING ON WIRING TERMINALS OR CONNECTOR PLUGS	100
ALIGN VIDEO MAPPER SWEEP GENERATORS	100
ALIGN INDICATOR DEFLECTION AMPLIFIERS	100
ALIGN INDICATOR RANGE MARK GENERATORS	100
ALIGN VIDEO MAPPER DEFLECTION AMPLIFIERS	100
ALIGN VIDEO MAPPERS	100
REMOVE OR REPLACE RESISTORS	100
ALIGN INDICATOR SWEEP GENERATORS	100
ALIGN INDICATOR DEFLECTION COILS	100
REMOVE OR REPLACE CATHODE-RAY TUBES	100
ALIGN INDICATOR FOCUS COILS	100
REMOVE OR REPLACE ELECTRON TUBES	90
PERFORM AREA BEAUTIFICATION	90
PERFORM SOLDERING ON CIRCUIT BOARDS	90
ALIGN VIDEO MAPPER VIDEO BIAS FOCUS CIRCUITRY	90
ALIGN VIDEO MAPPER SYNCHRONIZING CIRCUITRY	90
ALIGN INDICATOR CURSOR GENERATORS	90
ISOLATE VIDEO MAPPER SWEEP GENERATOR MALFUNCTIONS	90
REMOVE OR REPLACE RELAYS	90
ALIGN INDICATOR VIDEO MIXERS	90
REMOVE OR REPLACE SWITCHES	90
REMOVE OR REPLACE INDICATOR SWEEP GENERATORS	90
REMOVE OR REPLACE CAPACITORS	90
ALIGN PRECISION MAP GENERATORS	80
ALIGN INDICATOR SERVO AMPLIFIERS	80
ALIGN VIDEO MAPPER INTENSITY CUTOFF CIRCUITRY	80
PREPARE MAINTENANCE DATA COLLECTION RECORD FORMS (AFTO FORM 349)	80
ISOLATE VIDEO MAPPER VIDEO BIAS FOCUS CIRCUITRY MALFUNCTIONS	80
REMOVE OR REPLACE VIDEO MAPPER DEFLECTON AMPLIFIERS	80
REMOVE OR REPLACE SEMICONDUCTOR DEVICES	80
ISOLATE INDICATOR SWEEP GENERATOR MALFUNCTIONS	80
REMOVE OR REPLACE INDICATOR RANGE MARK GENERATORS	80
REMOVE OR REPLACE INDICATOR VIDEO MIXER SUBASSEMBLIES	80
REMOVE OR REPLACE TRANSFORMERS	80

TABLE IV

REPRESENTATIVE TASKS PERFORMED BY TACTICAL RADAR CREW MEMBERS

TASKS	PERCENT MEMBERS PERFORMING (N=11)
PERFORM GENERAL HOUSEKEEPING PROCEDURES	100
PERFORM TRANSMITTER RUNUP PROCEDURES	91
INSTALL OR REMOVE GROUND ANCHORS, TIEDOWNS, OR STRAPS	91
PERFORM SOLDERING ON CIRCUIT BOARDS	91
ERECT MOBILE RADAR ANTENNAS	82
CLEAN OR REPLACE AIR OR MOISTURE FILTERS	82
PERFORM PMIs ON TRANSMITTER EQUIPMENT	82
LEVEL SHELTERS OR VANS	82
PERFORM PMIs ON DISPLAY EQUIPMENT	73
INSTALL OR REMOVE INTERCONNECTING CABLES	73
DRIVE SMALL GOVERNMENT VEHICLES, SUCH AS PICKUPS OR PASSENGER VEHICLES	73
PERFORM PMIs ON RECEIVER EQUIPMENT	73
PERFORM PMIs ON ANTENNA EQUIPMENT	73
PERFORM PMIs ON IFF/SIF EQUIPMENT	73
INSTALL OR DISASSEMBLE MOBILE IFF/SIF ANTENNAS	64
PERFORM OPERATIONAL CHECKS OF TRANSMITTERS	64
PITCH OR STRIKE TENTS	64
INSTALL OR REMOVE MOBILIZERS OR TRANSPORTERS	64
INSTALL OR DISASSEMBLE WAVEGUIDE SYSTEMS	55
LOAD OR OFFLOAD EQUIPMENT ON TRUCKS OR AIRCRAFT	55
INVENTORY SUPPLIES, EQUIPMENT, OR TOOLS	55
PREPARE SUPPLY ISSUE/TURN-IN REQUESTS FORMS (AF FORM 2005)	55
PERFORM OPERATIONAL CHECKS OF IFF/SIF RADAR SYSTEMS	55
PERFORM CORROSION CONTROL ON EQUIPMENT VANS OR TRAILERS	55
PERFORM SYSTEM RUN DOWN PROCEDURES	45
INSTALL OR REMOVE EXTERNAL POWER LINES	45
PERFORM SOLDERING ON WIRING TERMINALS OR CONNECTOR PLUGS	45
PERFORM INDICATOR SWEEP CHECKS	45
PERFORM PMIs ON MOBILIZERS OR TRANSPORTERS	45
CONSTRUCT TEST CABLES OR TEST PLUGS	45

TABLE V

REPRESENTATIVE TASKS PERFORMED BY JOB CONTROL PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=72)
PREPARE JOB/STATUS DOCUMENT FORMS (AF FORM 264)	93
MAINTAIN STATUS BOARDS, GRAPHS, OR CHARTS	78
ISSUE JOB CONTROL NUMBERS	74
MAINTAIN EQUIPMENT STATUS REPORTS	68
DETERMINE WORK PRIORITIES	53
DOCUMENT EQUIPMENT CANNIBALIZATION	53
PREPARE BRIEFINGS	46
PARTICIPATE IN MEETINGS, SUCH AS STAFF MEETINGS, BRIEFINGS, CONFERENCES, OR WORKSHOPS	35
PREPARE APRs	31
PERFORM WORK AREA SECURITY INSPECTIONS	29
DISPATCH MAINTENANCE PERSONNEL	28
CONTROL REAL TIME EQUIPMENT OPERATIONS OR MAINTENANCE	25
PREPARE PUNCH CARD TRANSCRIPT FORMS (AF FORM 1530)	25
TYPE RECORDS, REPORTS, OR CORRESPONDENCE	25
CONDUCT OJT	25
COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED MATTERS	25
PREPARE JOINT MESSAGE FORMS (DD FORM 173)	24
UPDATE EQUIPMENT OPERATIONS OR MAINTENANCE SCHEDULES	24
MAINTAIN PREVENTIVE MAINTENANCE INSPECTIONS LISTINGS	22
DIRECT DEVELOPMENT OR MAINTENANCE OF STATUS BOARDS, GRAPHS, OR CHARTS	22
CONDUCT BRIEFINGS OTHER THAN CREW BRIEFINGS	22
ORIENT NEWLY ASSIGNED PERSONNEL	22
DIRECT MAINTENANCE OR UTILIZATION OF EQUIPMENT	19
CONDUCT CREW SHIFT CHANGEOVER BRIEFINGS	18
MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	18
DEVELOP EQUIPMENT OPERATIONS OR MAINTENANCE SCHEDULES	18
REVIEW CORRESPONDENCE OR REPORTS	18
INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	18
DIRECT MAINTENANCE OR FACILITIES OF WORK AREAS	17
DRIVE SMALL GOVERNMENT VEHICLES, SUCH AS PICKUPS OR PASSENGER VEHICLES	17

TABLE VI

REPRESENTATIVE TASKS PERFORMED BY RADAR MAINTENANCE SUPERVISORS

TASKS	PERCENT MEMBERS PERFORMING (N=177)
PARTICIPATE IN MEETINGS, SUCH AS STAFF MEETINGS, BRIEFINGS, CONFERENCES, OR WORKSHOPS	96
COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED MATTERS	95
ORIENT NEWLY ASSIGNED PERSONNEL	93
PREPARE APRs	90
INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	90
DETERMINE WORK PRIORITIES	88
REVIEW CORRESPONDENCE OR REPORTS	81
INDORSE AIRMAN PERFORMANCE REPORTS (APR)	80
ASSIGN PERSONNEL TO DUTY POSITIONS	79
SCHEDULE TEMPORARY DUTY, LEAVES, OR PASSES	79
EVALUATE INDIVIDUALS FOR RECOGNITION	77
PREPARE REPLIES TO INSPECTION REPORTS	77
WRITE CORRESPONDENCE	76
PLAN WORK ASSIGNMENTS	76
ESTABLISH WORK SCHEDULES	73
DETERMINE REQUIREMENTS FOR SPACE, PERSONNEL, EQUIPMENT, OR SUPPLIES	73
PREPARE RECOMMENDATIONS FOR AWARDS OR DECORATIONS	71
MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	68
COUNSEL TRAINEES ON TRAINING PROGRESS	66
IMPLEMENT SELF-INSPECTION PROGRAMS	64
DERERMINE OJT TRAINING REQUIREMENTS	64
DIRECT MAINTENANCE OF FACILITIES OR WORK AREAS	62
PERFORM SELF-INSPECTIONS	60
CONDUCT BRIEFINGS OTHER THAN CREW BRIEFINGS	60
ASSIGN ON-THE-JOB TRAINING (OJT) TRAINERS	59
INITIATE PERSONNEL ACTION REQUEST	59
DEVELOP WORK METHODS OR PROCEDURES	58
EVALUATE INSPECTION REPORTS OR PROCEDURES	58
ESTABLISH ORGANIZATIONAL POLICIES, OFFICE INSTRUCTIONS (OI), OR STANDARD OPERATING PROCEDURES (SOP)	57

TABLE VII

REPRESENTATIVE TASKS PERFORMED BY QUALITY CONTROL PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=114)
PERFORM EQUIPMENT INSPECTIONS	94
PREPARE INSPECTION REPORTS	90
EVALUATE COMPLIANCE WITH PERFORMANCE STANDARDS	89
EVALUATE INSPECTION REPORTS OR PROCEDURES	85
EVALUATE MAINTENANCE PROCEDURES	84
PERFORM PERSONNEL PROFICIENCY EVALUATIONS	82
REVIEW CORRESPONDENCE OR REPORTS	82
EVALUATE CORROSION CONTROL PROGRAMS	82
PARTICIPATE IN MEETINGS, SUCH AS STAFF MEETINGS, BRIEFINGS, CONFERENCES, OR WORK SHOPS	82
EVALUATE TECHNICAL ORDER IMPROVEMENT REPORTS	79
PREPARE ROUTING AND REVIEW OF QUALITY CONTROL REPORTS FORMS (AF FORM 2419)	75
ANALYZE TRENDS IN SYSTEM MALFUNCTIONS	75
PREPARE QUALITY CONTROL INSPECTION SUMMARY FORMS (AF FORM 2420)	74
DEVELOP INSPECTION SCHEDULES	74
PERFORM DEFICIENCY ANALYSIS	73
EVALUATE MATERIAL DEFICIENCY REPORTS	71
ESTABLISH INSPECTION PROCEDURES	70
PERFORM SELF-INSPECTIONS	69
EVALUATE PERFORMANCE OF NEWLY INSTALLED EQUIPMENT	69
EVALUATE MAINTENANCE OF PUBLICATION LIBRARIES	68
IMPLEMENT QUALITY CONTROL STANDARDS	68
WRITE CORRESPONDENCE	67
PERFORM ACTIVITY INSPECTIONS	66
PERFORM ACCEPTANCE INSPECTIONS	65
PREPARE REPLIES TO INSPECTION REPORTS	63
MAINTAIN TECHNICAL ORDER FILES	56
PREPARE TECHNICAL ORDER SYSTEM PUBLICATION IMPROVEMENT REPORT AND REPLY FORMS (AFTO FORM 22)	56
CERTIFY STATUS OF REPARABLE, SERVICEABLE, OR CONDEMNED PARTS	56
EVALUATE MAINTENANCE DATA OR EQUIPMENT RECORD FORMS	56
TYPE RECORDS, REPORTS, OR CORRESPONDENCE	52
PERFORM FACILITY INSPECTIONS	51

TABLE VIII

REPRESENTATIVE TASKS PERFORMED BY NCOICs, PLANS AND SCHEDULING

TASKS	PERCENT MEMBERS PERFORMING (N=14)
PREPARE PUNCH CARD TRANSCRIPT FORMS (AF FORM 1530)	100
DEVELOP EQUIPMENT OPERATIONS FOR MAINTENANCE SCHEDULES	100
MAINTAIN PREVENTIVE MAINTENANCE INSPECTIONS LISTINGS	86
REVIEW CORRESPONDENCE OR REPORTS	86
PARTICIPATE IN MEETINGS, SUCH AS STAFF MEETINGS, BRIEFINGS, CONFERENCES, OR WORKSHOPS	86
MAINTAIN PRECISION MEASUREMENT EQUIPMENT (PME) CALIBRATION SCHEDULES	79
WRITE CORRESPONDENCE	79
MAINTAIN TIME COMPLIANCE TECHNICAL ORDER REQUIREMENTS	79
PREPARE JOB/STATUS DOCUMENT FORMS (AF FORM 264)	71
UPDATE EQUIPMENT OPERATIONS OR MAINTENANCE SCHEDULES	64
MAINTAIN STANDARD AIR FORCE PUBLICATIONS, REGULATIONS, OR MANUALS	64
PLAN EQUIPMENT OR FACILITY MAINTENANCE REQUIREMENTS	57
MAINTAIN ADMINISTRATIVE OR RECORDS FILES	57
MAINTAIN STATUS BOARDS, GRAPHS, OR CHARTS	57
PREPARE JOINT MESSAGE FORMS (DD FORM 173)	57
DRAFT LOCAL POLICY OR HIGHER HEADQUARTERS DIRECTIVES	57
PREPARE REPLIES TO INSPECTION REPORTS	57
PREPARE APRs	57
DEVELOP INSPECTION SCHEDULES	50
COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED MATTERS	50
MAINTAIN HISTORICAL RECORDS	43
MAINTAIN EQUIPMENT STATUS REPORTS	43
EVALUATE MAINTENANCE DATA COLLECTION REPORTS	43
CONDUCT OJT	43
DIRECT DEVELOPMENT OR MAINTENANCE OF STATUS BOARDS, GRAPHS, OR CHARTS	43
PREPARE MAINTENANCE DATA COLLECTION RECORD FORMS (AFTO FORM 349)	43
DETERMINE WORK PRIORITIES	43
ESTABLISH WORK SCHEDULES	43
PREPARE BRIEFINGS	43
PREPARE CUSTODIAN REQUEST/RECEPT FORMS (AF FORM 601B)	43
INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	36
ESTABLISH ORGANIZATIONAL POLICIES, OFFICE INSTRUCTIONS (OI), OR STANDARD OPERATING PROCEDURES (SOP)	36

TABLE IX

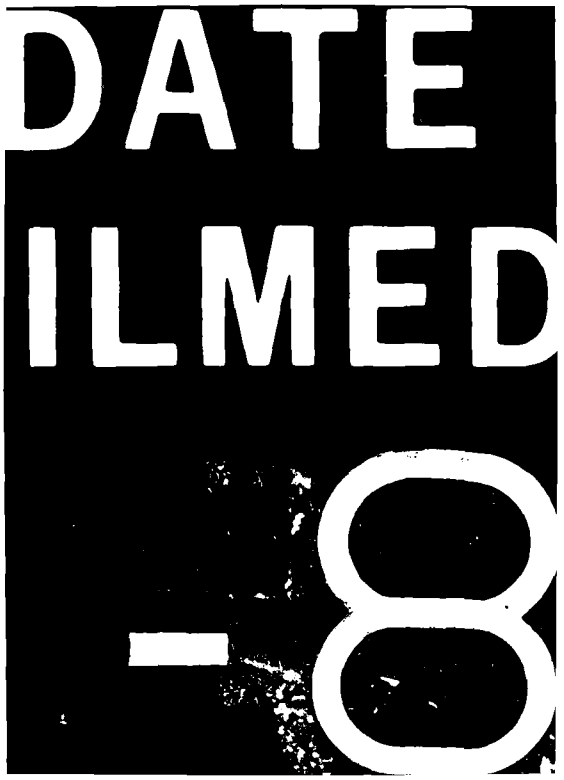
REPRESENTATIVE TASKS PERFORMED BY TACTICAL RADAR MAINTENANCE NCOICs

TASKS	PERCENT MEMBERS PERFORMING (N=20)
PREPARE SERVICEABLE TAG - MATERIEL FORMS (DD FORM 1574)	100
ERECT MOBILE RADAR ANTENNAS	95
PARTICIPATE IN MEETINGS, SUCH AS STAFF MEETINGS, BRIEFINGS, CONFERENCES, OR WORKSHOPS	95
PREPARE SUPPLY ISSUE/TURN-IN REQUESTS FORMS (AF FORM 2005)	90
INSTALL OR REMOVE GROUND ANCHORS, TIEDOWNS, OR STRAPS	90
LEVEL SHELTERS OR VANS	90
DRIVE HEAVY-DUTY VEHICLES, SUCH AS 1-1/2 TON TRUCKS OR 10 TON TRACTOR-TRAILER COMBINATIONS	85
PREPARE APRs	85
PREPARE REPARABLE ITEM PROCESSING TAG FORMS (AFTO FORM 350)	85
DETERMINE WORK PRIORITIES	85
PREPARE MAINTENANCE DATA COLLECTION RECORD FORMS (AFTO FORM 349)	85
INSTALL OR REMOVE INTERCONNECTING CABLES	80
LOAD OR OFFLOAD EQUIPMENT ON TRUCKS OR AIRCRAFT	80
WRITE CORRESPONDENCE	80
SUPERVISE AIRCRAFT CONTROL AND WARNING (AC&W) RADAR SPECIALISTS (AFSC 30352)	75
INSTALL OR DISASSEMBLE MOBILE IFF/SIF ANTENNAS	75
DRIVE SMALL GOVERNMENT VEHICLES, SUCH AS PICKUPS OR PASSENGER VEHICLES	75
CONDUCT OJT	75
PITCH OR STRIKE TENTS	75
PREPARE RADAR VANS FOR SHIPMENT	75
CERTIFY STATUS OF REPARABLE, SERVICEABLE, OR CONDEMNED PARTS	75
PREPARE UNSERVICEABLE (REPARABLE) TAG MATERIEL FORMS (DD FORM 1577-2)	75
COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED MATTERS	75
INSTALL OR REMOVE MOBILIZERS OR TRANSPORTERS	70
PERFORM GENERAL HOUSEKEEPING PROCEDURES	70
MAINTAIN DAILY DOCUMENT REGISTER AND ITEM SURVEILLANCE LISTS (D04)	70
ORIENT NEWLY ASSIGNED PERSONNEL	70
ESTABLISH WORK SCHEDULES	70
PERFORM PMIs ON IFF/SIF EQUIPMENT	70
PERFORM PMIs ON ANTENNA EQUIPMENT	70

TABLE X

REPRESENTATIVE TASKS PERFORMED BY RESIDENT COURSE INSTRUCTORS

TASKS	PERCENT MEMBERS PERFORMING (N=52)
PREPARE LESSON PLANS	100
SCORE TESTS	100
ADMINISTER TESTS	92
CONDUCT RESIDENT COURSE CLASSROOM TRAINING	90
COUNSEL TRAINEES ON TRAINING PROGRESS	79
WRITE TEST QUESTIONS	75
DEVELOP TRAINING AIDS	75
EVALUATE PROGRESS OF RESIDENT COURSE STUDENTS	71
CONDUCT SAFETY TRAINING	52
MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	52
COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED MATTERS	42
PARTICIPATE IN MEETINGS, SUCH AS STAFF MEETINGS, BRIEFINGS, CONFERENCES, OR WORKSHOPS	37
EVALUATE TRAINING METHODS OR TECHNIQUES	29
DETERMINE RESIDENT COURSE TRAINING REQUIREMENTS	29
PROCURE TRAINING AIDS, SPACE, OR EQUIPMENT	27
PREPARE TECHNICAL ORDER SYSTEM PUBLICATION IMPROVEMENT REPORT AND REPLY FORMS (AFTO FORM 22)	25
MAINTAIN STUDY REFERENCE FILES	21
MAINTAIN TECHNICAL ORDER FILES	19
PREPARE TRAINING REPORTS	19
INVENTORY SUPPLIES, EQUIPMENT, OR TOOLS	19
DEVELOP TRAINING COURSE OR CAREER DEVELOPMENT COURSE (CDC) CURRICULUM MATERIALS	17
CONDUCT SECURITY TRAINING	17
SELECT INDIVIDUALS FOR SPECIALIZED TRAINING	15
CONDUCT OJT	13
MAINTAIN ADMINISTRATIVE OR RECORDS FILES	13
EVALUATE COMPLIANCE WITH PERFORMANCE STANDARDS	12
EVALUATE INDIVIDUALS FOR RECOGNITION	12
EVALUATE INSTRUCTOR PERFORMANCE	12
EVALUATE OJT TRAINERS OR TRAINEES	12
INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	12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